Alcohol | Aluminum | Antimony | Apples |
Arsenic | Barley | Bauxite | Beer |
Bismuth | Broilers | Burlap &
Butter | Cadmium | Castor
Cattle & Calves | Ceme
Cheese | Chromite |
Cobalt | Cocoa | Co
Coconut Oil & Co
Copra | Coffee |
Coke | Copper |
Corn Oil | Cotton
Cottonseed &
Cottonseed Pro
Currencies | Dis
Distilled Spirits |
Eggs | Electric Po
Fertilizers | Flaxse
& Linseed Oil | Gas |
Glass | Gold | Grain S
Sorghums | Hard Fibers
Hay | Heating Oil | Hides &
Hogs | Honey | Interest Rates |
Iron & Steel | Lard | Lead | Lumber
Plywood | Magnesium | Manganese | Ma

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COMMODITY YEAR BOOK
1986

1986 COMMODITY YEAR BOOK

$46.95

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75 MONTGOMERY ST., JERSEY CITY, N.J. 07302

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ISBN 0-910418-18-7
Library of Congress Catalog Card Number 39-11418

INTRODUCTION

Overall trading in commodity futures increased 6 percent in 1985, to establish a new record volume of 158.7 million contracts. However, the "mix" by commodity groups continued to shift. For the first time, interest rate futures displaced agricultural commodities as the leader in trading volume, accounting for 35 percent of the total versus 25 percent for the agricultural markets. The share of total volume represented by foreign currencies and the equities indices also increased in 1985.

A number of considerations contributed to the shifting composition of trading volume in 1985. Interest rates dropped sharply, the rate of inflation decreased, foreign currencies strengthened, and equity prices soared. Contributing to reduced activity in the agricultural commodities were record, or near-record large 1985/86 season supplies, and the initially adverse impact of the 1985 U.S. farm bill.

Trading in options on futures increased significantly, more than doubling in 1985 to 20 million contracts, paced by the interest rate group.

There is growing recognition of the interrelationships that exist worldwide with respect to broad economic, monetary, and fiscal policies which influence capital and trade flows. Evidence of this is the accord among seven major industrial countries at the Tokyo summit meeting in May of this year aimed at coordinating policies on economic growth, protectionism, and foreign currency fluctuations. Developments in these areas are expected to play a continuing important role in the determination of interest rates and foreign exchange rates, and perhaps in the overall commodity price level. Shifting global commodity supply/demand and price relationships (possibly exacerbated by lingering effects of the Chernobyl nuclear accident) in response to changes in the economic climate, government trade policies, and weather developments emphasize the need for continuing evaluation of unfolding events as they relate to the past.

CRB Commodity Year Book 1986 is designed to provide an historical framework for the analysis of commodity prices, financial instruments, foreign currencies, and stock index futures. Valuable tables, text material, and price charts are included for examining these and other markets. The feature studies in the 1986 Year Book are presented to help the reader evaluate and take advantage of potentially profitable trading opportunities in some of these markets.

"The Cycle of Food and Fiber Production," our first feature study, is "must" reference material for anyone engaged in the production, marketing, processing, or trading of major agricultural commodities traded on futures markets. It provides a worldwide crop calendar of planting, important growth, and harvesting periods for major commodities, by region monthly. We regard it as one of the most important reference studies ever published by Commodity Research Bureau. Its author, David S. Salmon, is Senior Agricultural Meteorologist for Global Weather Services, a division of Commodity News Services.

Our second feature article, "Foreign Exchange Option Basics," describes the anatomy of a foreign currency futures option contract in easy-to-understand terms, the factors that influence an option's premium, and option strategies. Sections on how to use out-of-the-money, at-the-money, and in-the-money options should be of particular interest to the reader. Beverly Bell, the author, is a free-lance financial writer, specializing in educational material on financial and foreign exchange markets.

"The Impact of the 1985 Farm Bill on Major Agricultural Commodities," indicates the change in direction of U.S. farm policy, and explains in understandable terms, the major provisions of this complicated legislation which will affect prices of basic crops for the 1986–1990 period. The impact of this farm bill on supply, demand, and prices of the major commodities traded on futures exchanges is covered in depth. Its author, Susan Buchanan, C.R.B. is Associate Editor of Commodity Year Book, and was formerly with the Economic Research Service of the USDA.

Our fourth feature study, "The Changing Market Structures of Crude Oil and Platinum," is a timely one which should be of considerable interest to those involved in these markets. It shows how, in each instance, the pricing structure has changed from one of "administered" prices to one of free-market prices in which futures play a major role. Its author, Dr. Elizabeth L. Saxe, is Marketing Specialist for the New York Mercantile Exchange, and was formerly a research analyst for Mocatta Metals Corp.

We wish to express our appreciation for the assistance provided us by government agencies, particularly the U.S. Department of Agriculture and the U.S. Bureau of Mines; various trade associations and publications; and other organizations. We have attempted to list these institutions on page 4*T*.

The Editorial Board
May 1986

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ACKNOWLEDGMENTS

The editors wish to thank the following for source material:

Aluminum Association
American Bureau of Metal Statistics
American Gas Association
American Iron and Steel Institute
American Metal Market
American Paper and Pulp Association
American Petroleum Institute
Atomic Industrial Forum, Inc.
Chicago Board of Trade
Chicago Mercantile Exchange
Citrus Associates of the N.Y. Cotton Exch., Inc.
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MidAmerica Commodity Exchange
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National Coffee Association of U.S.A., Inc.
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United States Bureau of Mines
United States Tariff Commission
United States Treasury Department
Winnipeg Commodity Exchange
Wool Services Co.
Zinc Institute, Inc.

This edition of the CRB Commodity Year Book is dedicated to Walter L. Emery, Senior Editor and Director of Research, on the occasion of his retirement, with our affection and gratitude.

The Commodity Price Trend

The overall commodity price level continued to trend lower in 1985. The Commodity Research Bureau Futures Price Index, which measures price expectations up to several months in the future, declined 6.1 percent in 1985, to end the year at 229.2 percent of its 1967 base. This level was 32 percent below the all-time peak of 337.6 registered on November 20, 1980, and only 5.5 percent above the 1985 low of 217.2. (The index subsequently declined further, to an 8-year low of 203.0 by mid-April, 1986.)

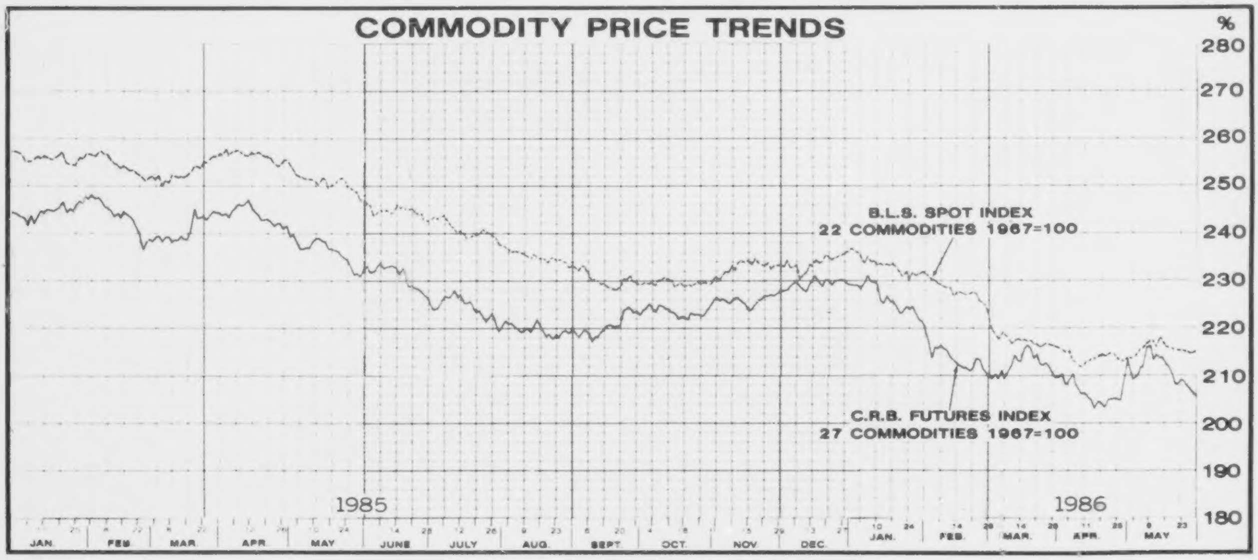
The decline in the CRB Futures Price Index in 1985 was paced by weakness in the Livestock, Grains, and Oilseeds groups, which posted losses of 14, 12 and 10 percent, respectively. Weakness in the Livestock group (which had risen to the highest level since late 1980 in the previous year) primarily reflected larger-than-expected red meat supplies. Both Grains and Oilseeds declined in response to increased supplies and expectations of reduced price support levels. Two groups bucked the overall lower price trend. The Imported group registered a 36.5 percent gain, to the highest level since April 1981, influenced primarily by soaring coffee prices in response to concern over drought damage to quantity and quality of the 1986/87 Brazilian coffee crop. The Precious Metals group registered a 5.5 percent recovery in 1985, after having been the weakest futures group in 1984.

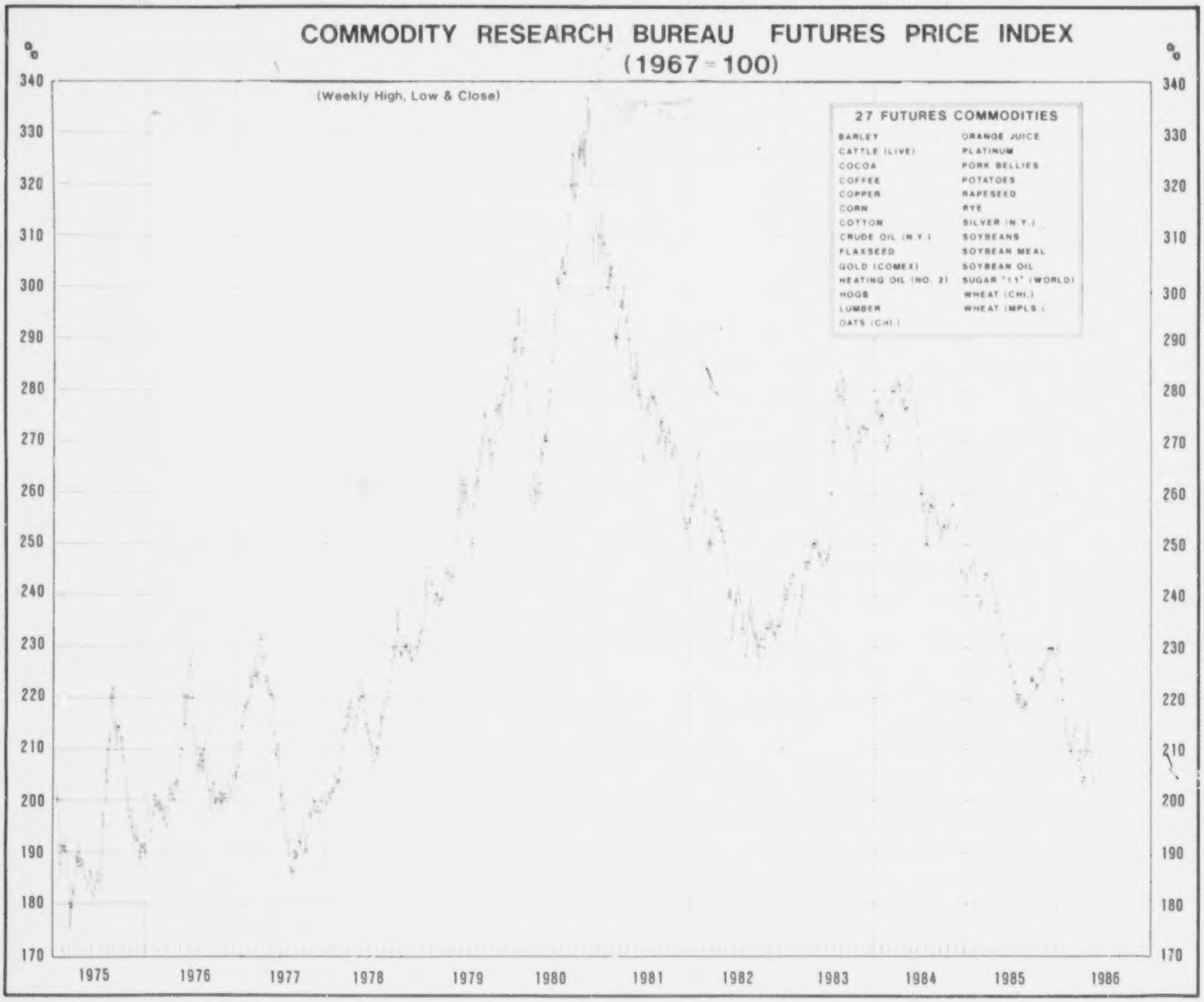
The CRB (BLS-Formula) Spot Price Index, which measures current price quotations for physical commodities, declined 8 percent in 1985, to 236.7 percent of its 1967 base, 21.3 percent lower than the all-time high of 300.9 registered on November 4, 1980, and only 2.8 percent above the year's low of 230.3. (This index later sagged to 211.9 by early April 1986, the lowest level since early 1978). Both the Raw Industrials and Foodstuffs sub-indices recorded declines of 8 percent. The weakest component was the fats & oils sector of the Foodstuffs sub-index, which dropped 23 percent, while the livestock segment declined 12 percent. The textiles sector of the Raw Industrials sub-index dropped 17 percent, while the metals sector was off 4 percent for the year.

A GATT (General Agreement on Tariffs and Trade) study indicated that the volume of world trade expanded 3 percent in 1985 after increasing 9 percent in 1984, and that trade should grow 4 to 5 percent in 1986 provided that a modest increase occurs in the economic growth rates of industrialized countries. According to the GATT study, the volume of trade in 1985 expanded in manufactured goods by 5 percent, while declining 2.5 percent in agricultural products and minerals, including petroleum products. In 1984, trade increased 12 percent in the manufacturing sector, 4 percent in agriculture and 3 percent in minerals.

U.S. farm product exports dropped record amounts in both value and volume in 1985, to their lowest levels in nearly 10 years. The U.S. dollar rose in real terms for the 7th consecutive year and foreign agricultural production remained strong. Consequently, the U.S. share of world agricultural trade dropped for the 5th consecutive year. The potential favorable impact on U.S. agricultural exports of the decline in the nominal foreign-exchange value of the U.S. dollar during much of 1985 was muted by the usual lag in changing trade flows as a consequence of such a development, and also by large world commodity surpluses.

As mid-1986 approached, inflationary concerns were muted because of low interest rates, rather sluggish economic growth rates in some important industrial countries, low petroleum prices and generally soft agricultural and industrial commodity prices. However, concern remained about high unemployment rates in many OECD countries, rising trade protectionism, and the foreign debt situation of some developing countries, as well as U.S. monetary and fiscal policies and the shift of the U.S. to a net debtor position for the first time in over 70 years.





Monthly CRB Futures Price Index (High, Low & Close 1967 = 100)

Year		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Range
1982	High	267.2	268.6	257.5	257.3	253.3	242.0	242.4	238.4	239.8	234.3	236.3	235.7	268.6
	Low	256.0	256.5	248.7	252.5	244.9	231.5	233.2	227.1	227.9	225.8	231.2	231.1	225.8
	Close	267.2	256.5	250.1	253.1	244.9	239.3	233.7	235.4	227.9	229.9	235.7	234.0	—
1983	High	242.7	245.1	242.1	247.3	252.7	249.5	261.7	281.6	283.8	275.4	275.6	277.6	283.8
	Low	234.8	232.1	232.8	244.7	247.2	244.2	245.2	263.5	272.5	264.6	265.9	270.4	232.1
	Close	242.7	232.1	242.1	246.7	249.7	246.2	259.9	278.7	273.5	264.6	273.9	277.6	—
1984	High	278.3	276.1	283.0	283.2	284.2	280.3	268.3	259.8	256.3	254.8	258.7	253.2	284.2
	Low	273.2	266.1	274.7	275.1	275.3	268.4	249.4	253.3	250.3	252.0	252.7	244.0	244.0
	Close	273.6	272.5	283.0	275.1	280.1	271.0	249.4	257.1	251.4	254.8	253.8	244.2	—
1985	High	247.9	248.1	245.2	247.1	239.7	233.8	228.0	221.7	224.5	225.6	227.7	231.1	248.1
	Low	241.7	236.6	238.2	239.3	230.9	226.6	219.3	217.7	217.2	221.9	223.8	227.6	217.2
	Close	247.1	238.2	244.4	239.3	232.3	226.6	220.7	219.7	222.9	225.6	227.7	229.2	—
1986	High	231.1	216.6											
	Low	219.9	209.9											
	Close	219.9	209.9											

Source: Commodity Research Bureau

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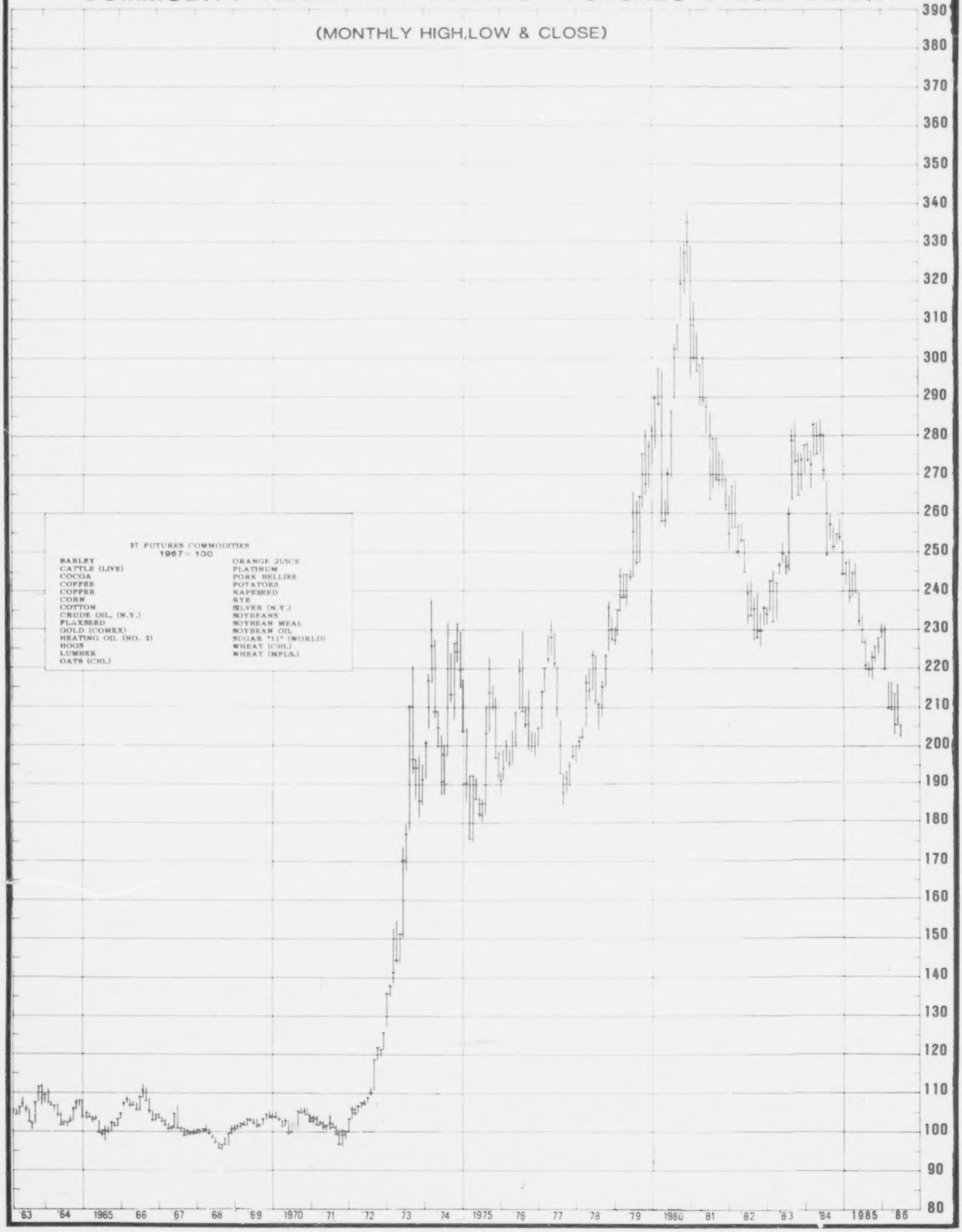
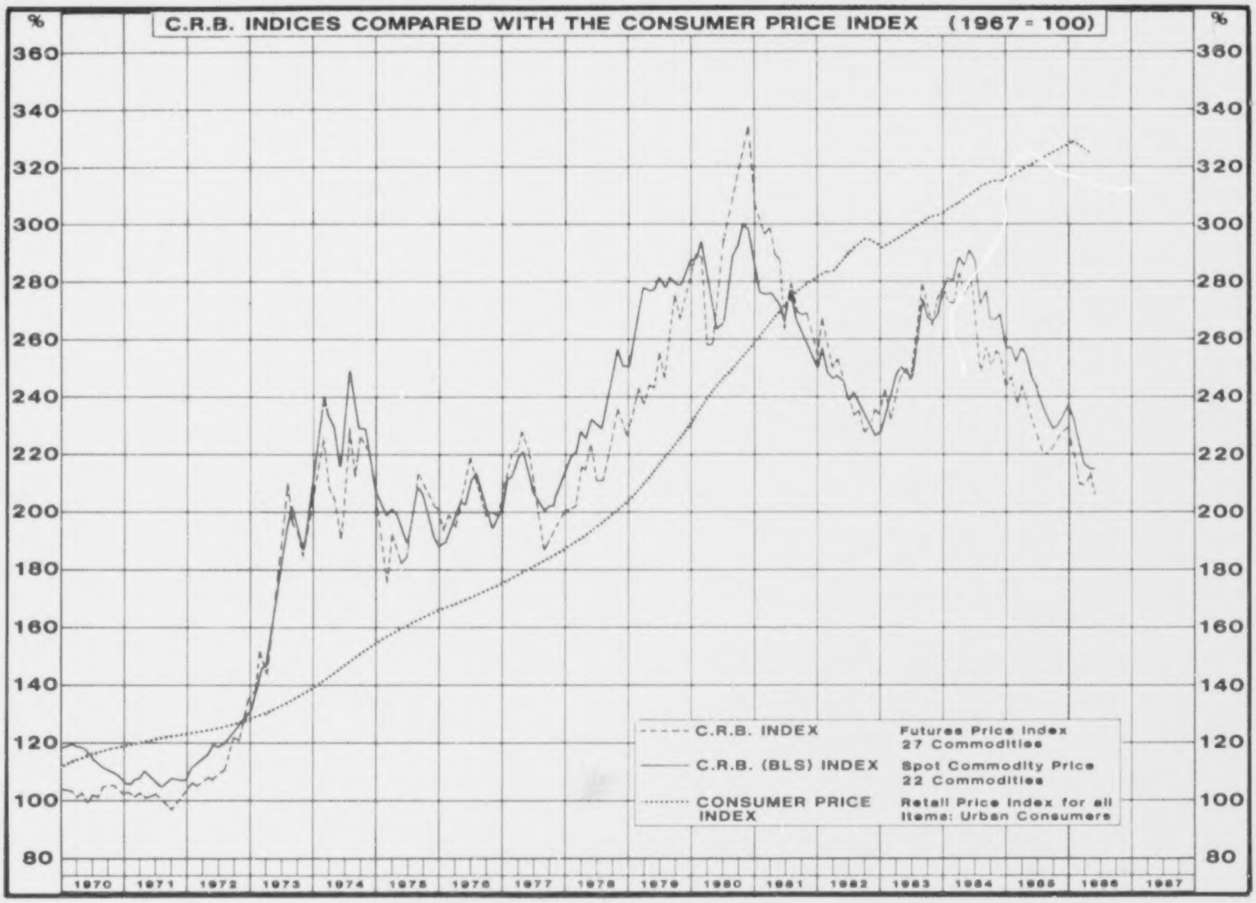
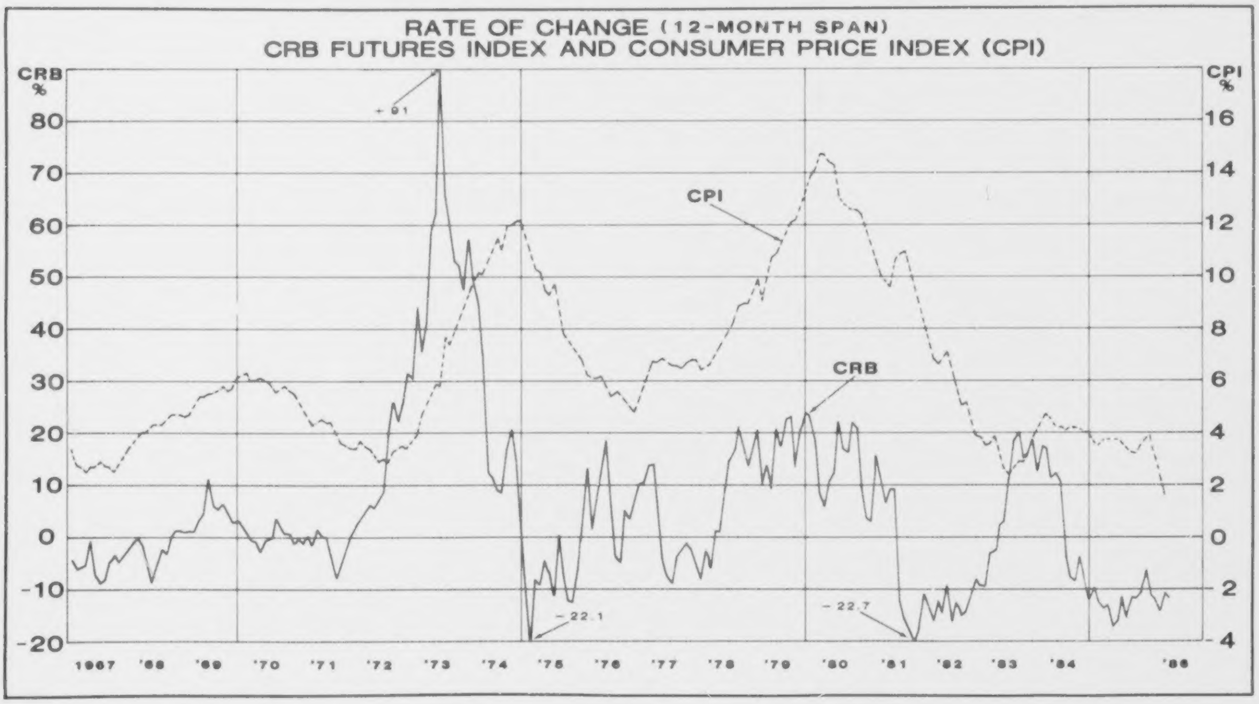
COMMODITY RESEARCH BUREAU FUTURES PRICE INDEX

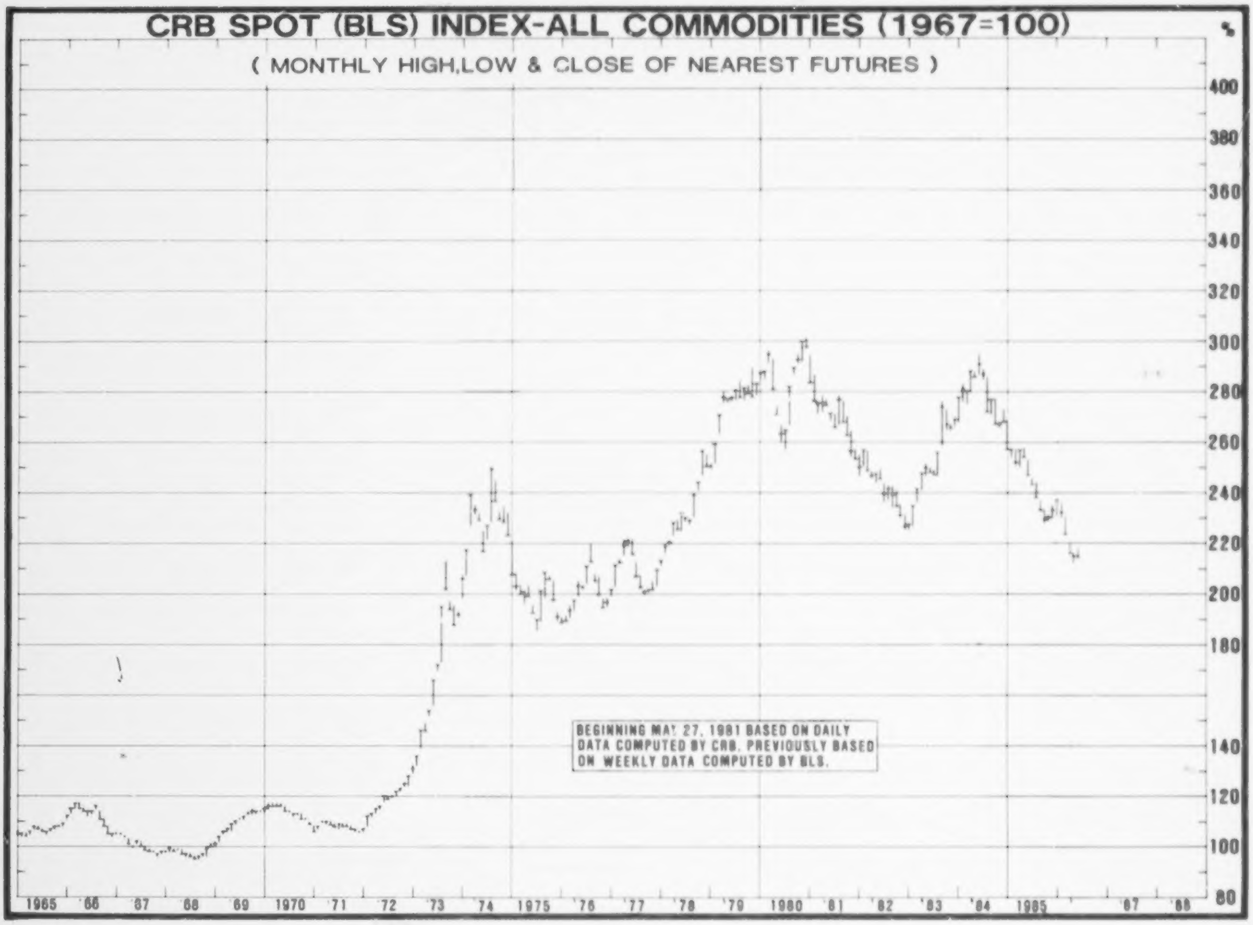




C.R.B. INDICES COMPARED WITH THE CONSUMER PRICE INDEX (1967 = 100)

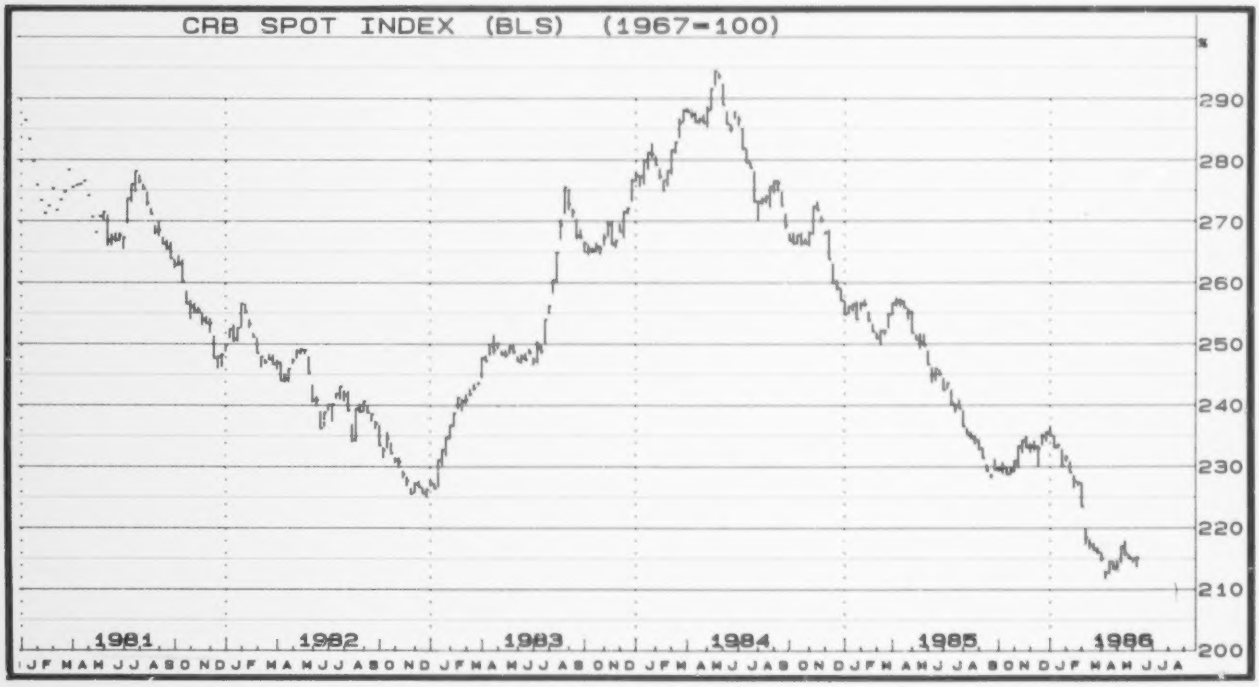


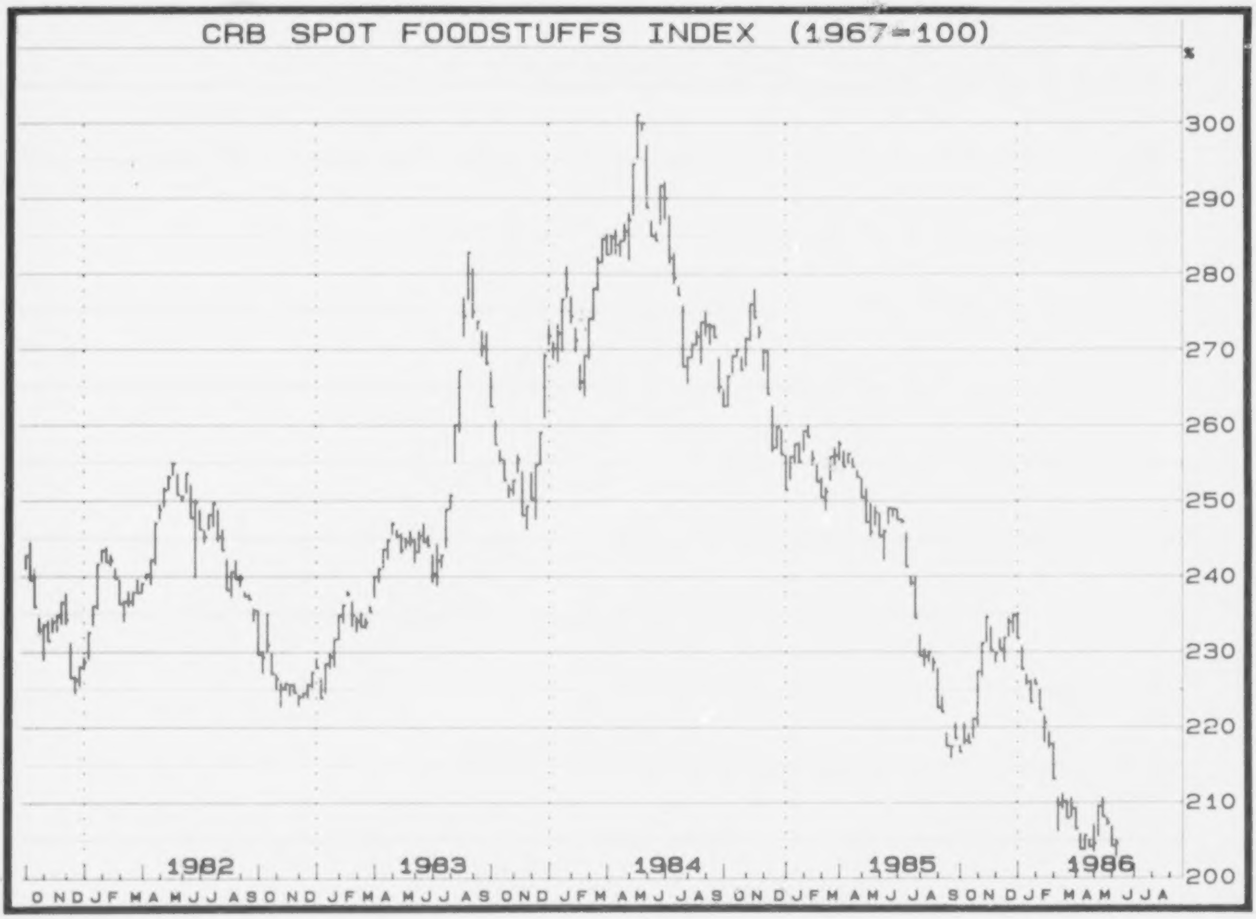
RATE OF CHANGE (12-MONTH SPAN)
CRB FUTURES INDEX AND CONSUMER PRICE INDEX (CPI)


CRB SPOT (BLS) INDEX-ALL COMMODITIES (1967=100)

(MONTHLY HIGH,LOW & CLOSE OF NEAREST FUTURES)

BEGINNING MAY 27, 1981 BASED ON DAILY DATA COMPUTED BY CRB. PREVIOUSLY BASED ON WEEKLY DATA COMPUTED BY BLS.


CRB SPOT INDEX (BLS) (1967=100)


CRB SPOT FOODSTUFFS INDEX (1967=100)
%
300
290
280
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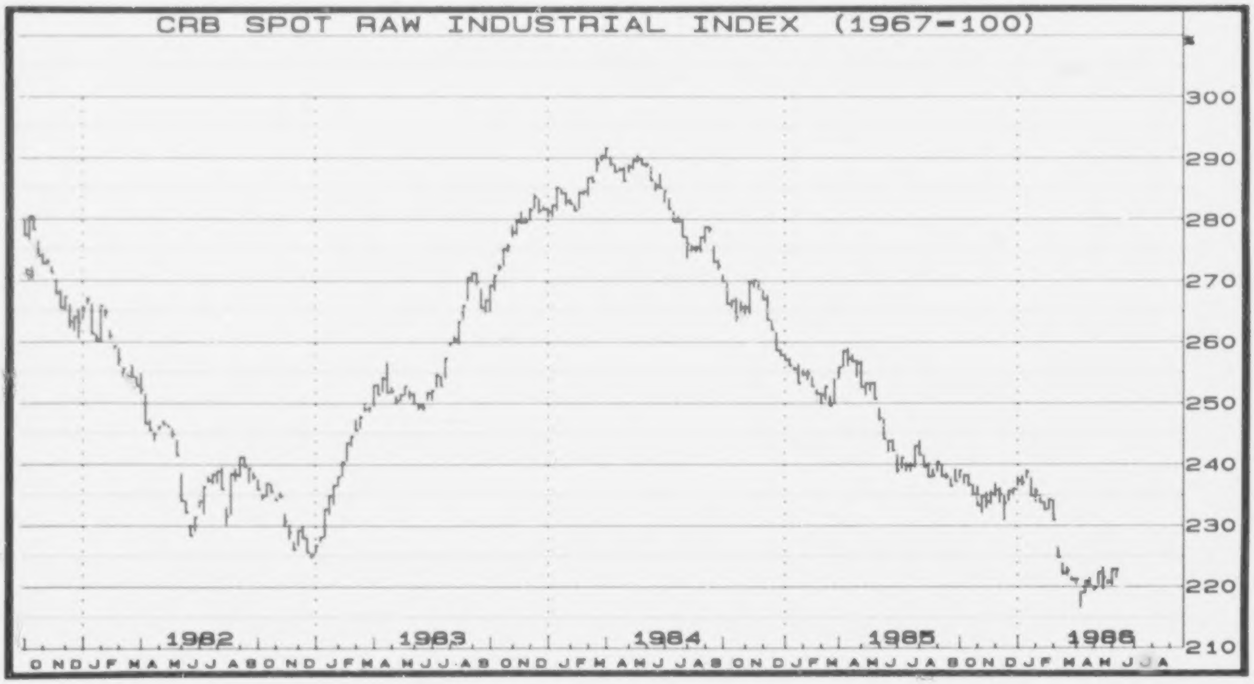
CRB SPOT RAW INDUSTRIAL INDEX (1967=100)
%
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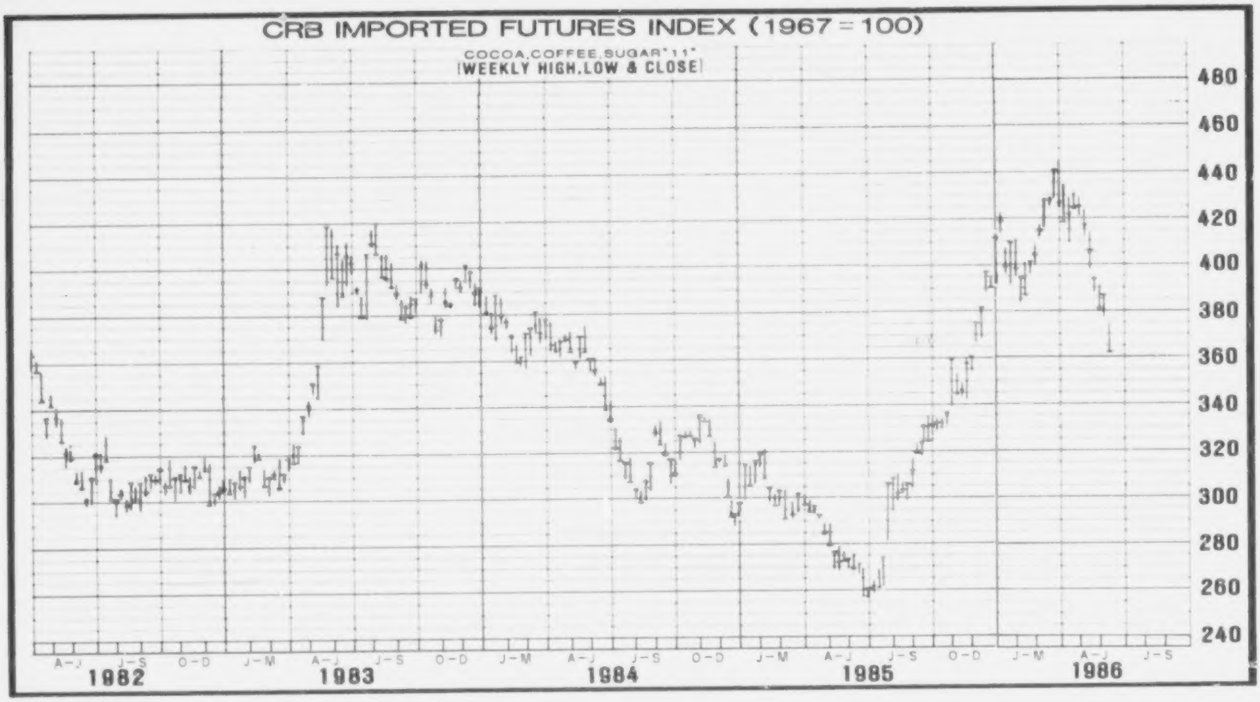
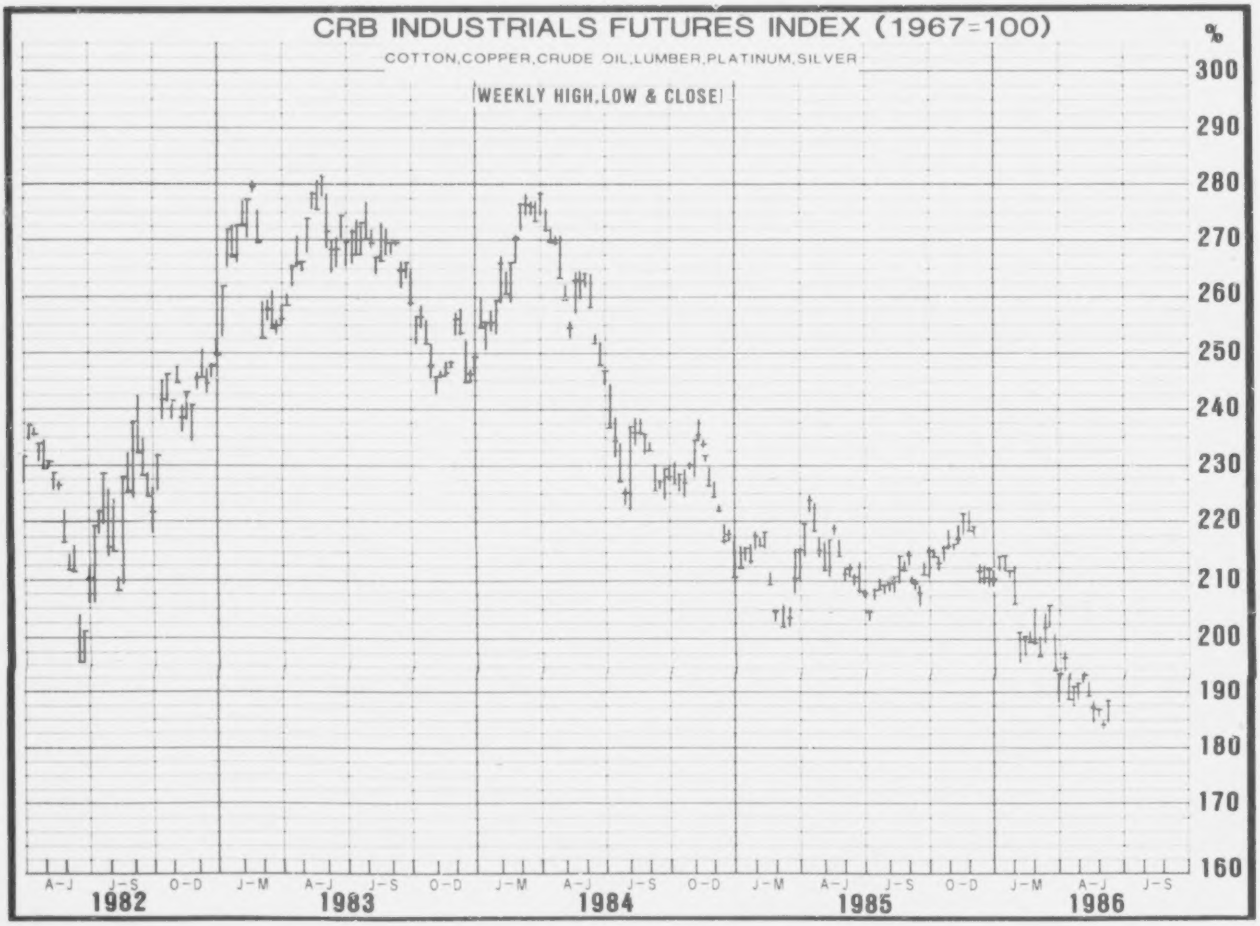


CRB IMPORTED FUTURES INDEX (1967 = 100)

COCOA, COFFEE, SUGAR "11"

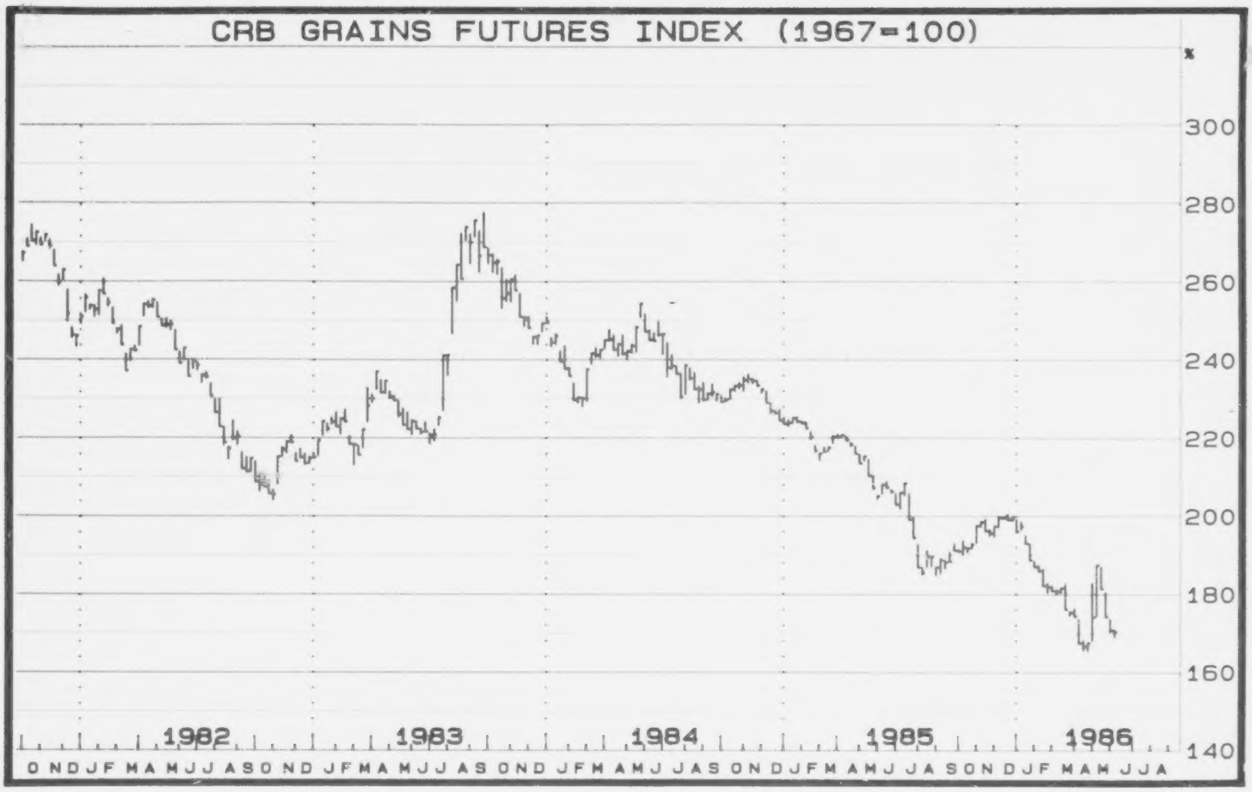
(WEEKLY HIGH, LOW & CLOSE)

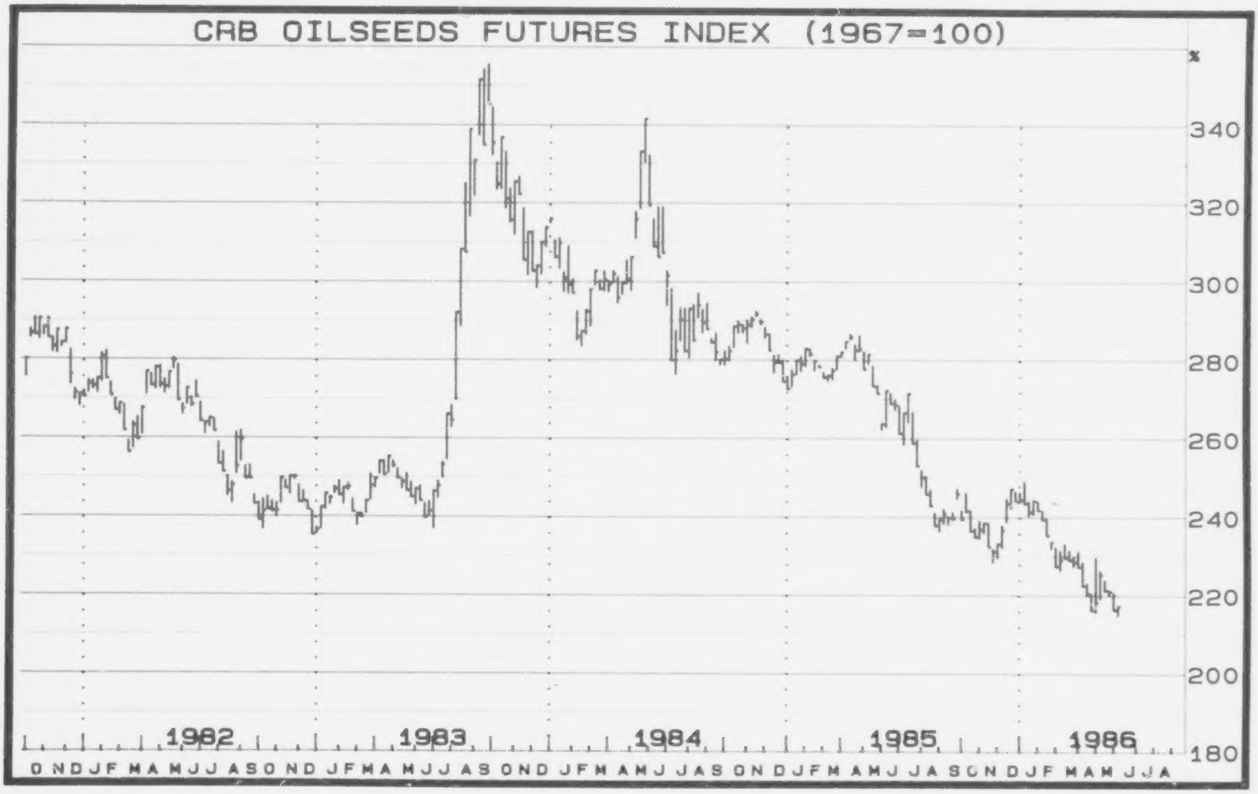


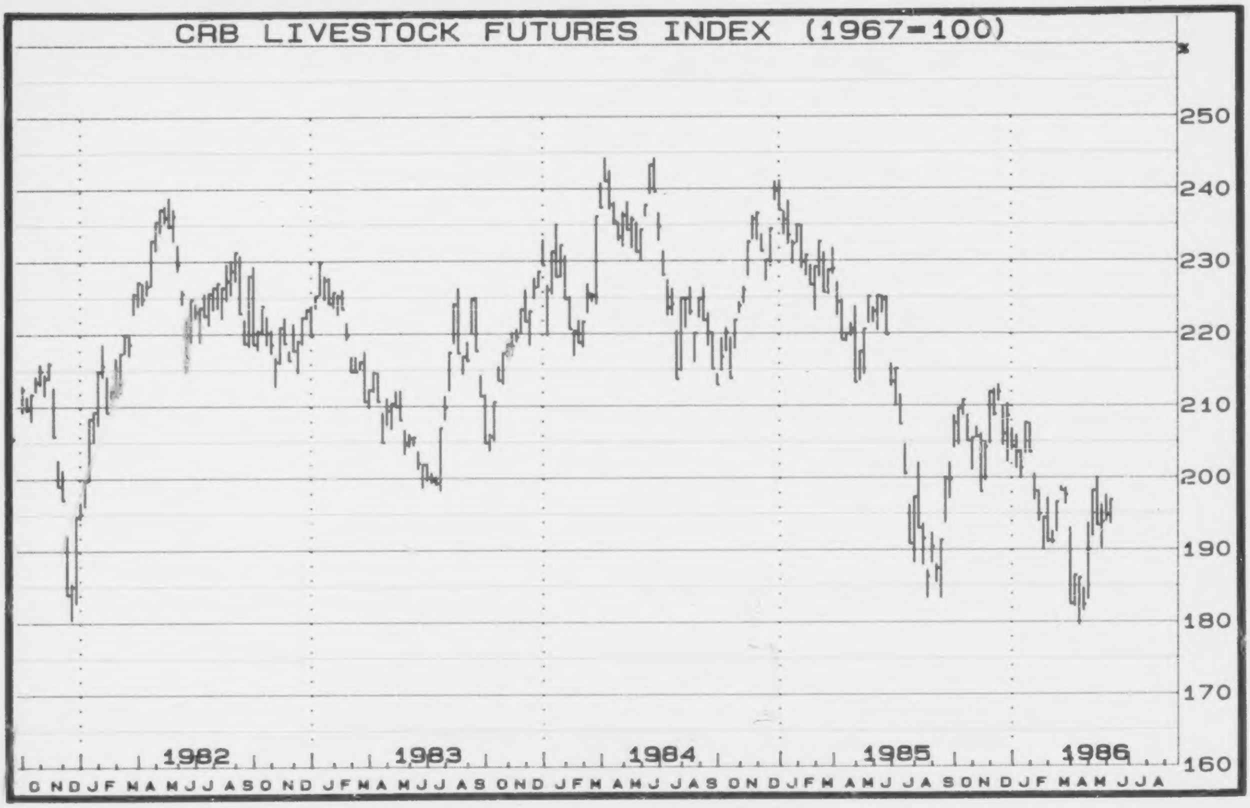
CRB INDUSTRIALS FUTURES INDEX (1967=100)

COTTON, COPPER, CRUDE OIL, LUMBER, PLATINUM, SILVER

(WEEKLY HIGH, LOW & CLOSE)


CRB GRAINS FUTURES INDEX (1967=100)


CRB OILSEEDS FUTURES INDEX (1967=100)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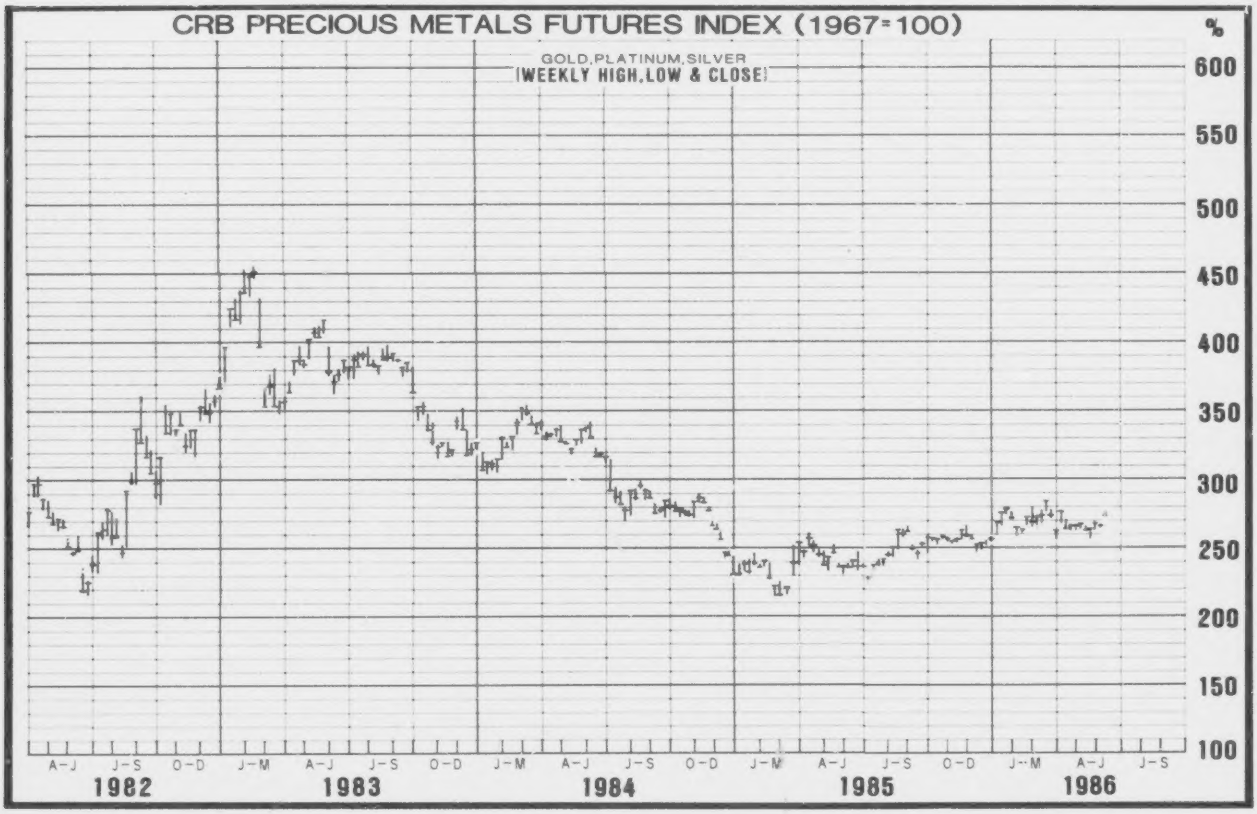
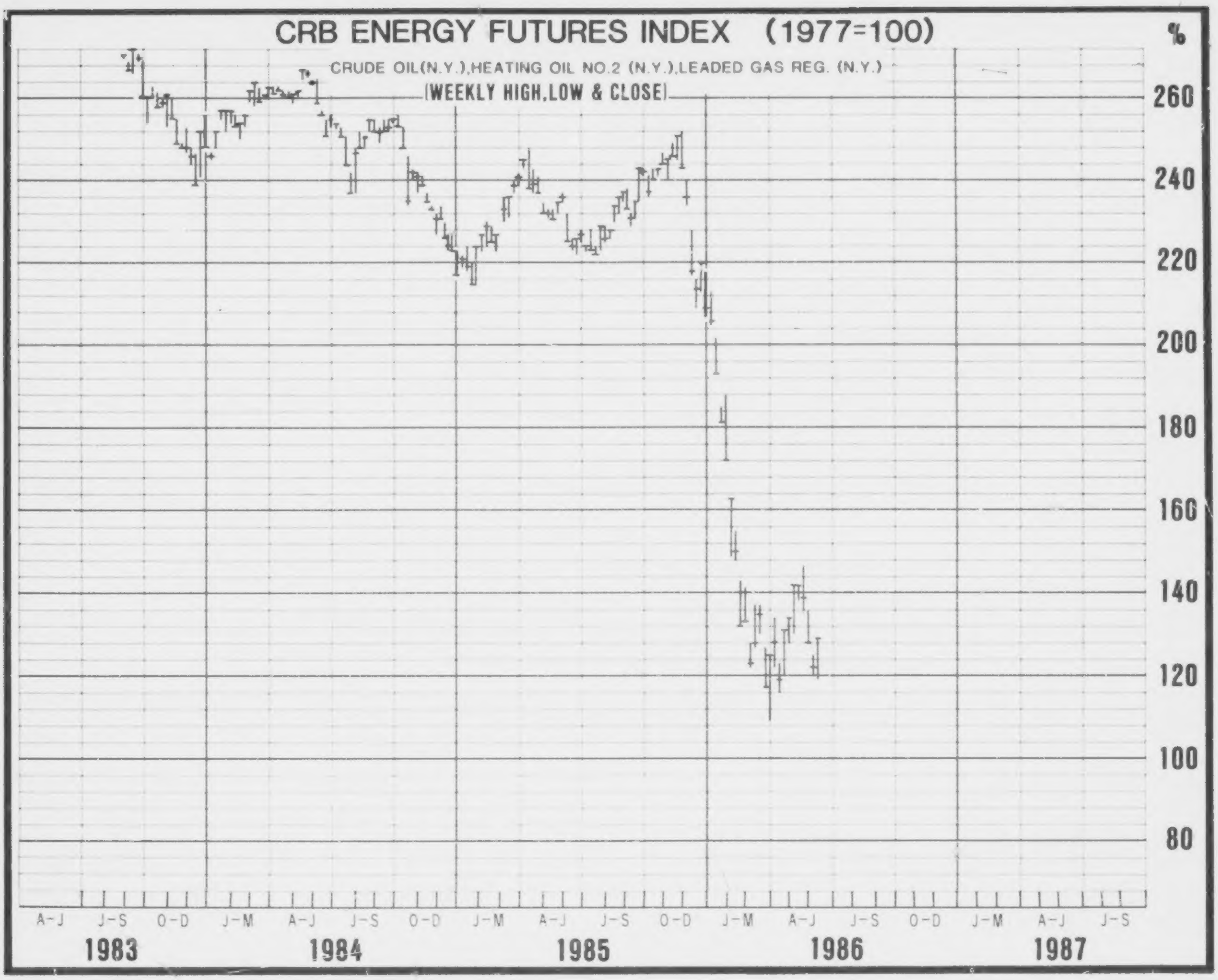

CRB PRECIOUS METALS FUTURES INDEX (1967=100)



CRB ENERGY FUTURES INDEX (1977=100)

CRUDE OIL(N.Y.),HEATING OIL NO.2 (N.Y.),LEADED GAS REG. (N.Y.)

(WEEKLY HIGH,LOW & CLOSE)

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THE CYCLE OF FOOD AND FIBER PRODUCTION

BY DAVID S. SALMON

Editor's Note: Commodities traded on U.S. futures exchanges have been printed in upper case letters throughout the text of this article for ease of identification and reference.

For everything, there is a season—a time to plant and time to pluck what is planted.

Although science and engineering have made this less true than it was 2,400 years ago, the main controls on reaping and sowing are still seasonal.

In the middle and poleward latitudes, the overwhelming control on planting and harvesting is the seasonal fluctuation in temperature.

Nearer the equator, the most important control on planting is often the seasonal availability of water, whether from the double-edged sword of the Asian Monsoon or exotic sources such as the mid-summer flooding of the Nile.

Ripening and harvesting in tropical areas will most often coincide with drier periods.

For tropical areas where rainfall is equally distributed through the year, production from tree crops may show only minor fluctuations through the year, palm oil from Malaysia and Indonesia being the prime example.

Local variations in terrain and elevation may produce contrasting plant/harvest schedules over seemingly short distances within a nation's boundaries, while some crops are grown in overlapping cycles that span 14 to 18 months and rotations that may span years.

Cycles of differing crops often overlap so that a thunderstorm in May in the Northern Hemisphere brings vigor to winter wheat, but can seriously delay corn planting in the next field. A similar storm during May in the Southern Hemisphere may fall on an already harvested soybean field in Brazil and be of little consequence, or it may wash out a road that would be used in the months ahead to transport coffee.

The uncertain availability of products prior to planting and on through the harvest contrasted with the certainty of availability and demand after harvest, combine to create strong and weak price periods, as pointed out by Phillip E. Tiger, *Commodity Year Book, 1984*.

These periods correspond with the seasonal crop cycles and are strongest or weakest when weather and climatic conditions are either very favorable or very unfavorable.

Although cyclic and normally confined to a single year, there is no absolute place to begin describing the nearly continuous process of food and fiber production over all the earth, so we begin with January and proceed by region and then by month through December.

January

For most agricultural endeavors in the high latitudes of the Northern Hemisphere, January is a quiet month, while in the Southern Hemisphere crops are in their most active growth periods.

In the U.S., harvesting of ORANGES for frozen concentrate (FCOJ) begins across central Florida while the SUGAR cane harvest continues in southern Florida.

Winter WHEAT planting may continue in California and along the Gulf Coast most of the month.

Supplemental feeding of WHEAT, CORN, other feed grains and forage to cattle and other livestock may reach its peak during January because of the largely dormant or snow-covered condition of pastures. During very cold periods, pastured cattle as well as cattle in feedlots may have sharply curtailed weight gains as the animals use all the available food just to generate body warmth.

In Mexico, SUGAR cane, COFFEE and COCOA harvesting increases. WHEAT planting may continue in portions of Mexico.

In the Caribbean, SUGAR cane harvesting increases during January.

In Europe, a limited amount of planting of winter and spring grains will occur in southern regions. The amount of winter planting left and the start of spring planting will largely depend on the availability of soil moisture.

In the USSR, winter grains are dormant. Snow cover should be extensive to prevent winterkill of WHEAT and rye during this normally bitterly cold month.

Southern China may still have some crop activity, but most of China is firmly in the grip of the normally cold, dry Asian winter.

In India, SUGAR cane harvesting and processing is at maximum. SUGAR cane planting may occur in the southern coastal areas.

SUGAR cane harvesting and planting continue in the Philippines.

Winter WHEAT may be semi-dormant in northern India, but is growing actively in central India and may begin jointing (stem elongation) by late January.

North Africa may continue to plant winter WHEAT through early January, although most grains are in the early growth stages by early January and begin jointing (stem elogation) by late January.

Olive harvesting for oil is completed across North Africa.

In tropical Africa, the COCOA and COFFEE harvests remain active north of the equator. The SUGAR harvest is winding down in Mauritius and is largely confined to the ratoon crop.

In South America, SOYBEAN planting may continue into early January in Argentina and to a lesser extent in Brazil. However, most SOYBEANS were planted in late October through mid-December and will start to bloom by the middle of January and set pods by late January.

WHEAT harvesting in Argentina will conclude by mid-January in Santa Fe. Most of the WHEAT in Buenos Aires will have been harvested by the middle of January, but some harvesting may continue in the south into late January.

CORN will be in reproductive stages in southern Brazil through the end of January, but the more northern areas of Brazil will be beyond the reproductive stage by mid to late January.

CORN will silk in the northern sections of Argentina in early January and in southern areas after mid-January.

A few sunflowers may be planted in Argentina through early January, but most sunfowers were planted earlier and will begin to flower by the end of January.

COTTON squares (buds) in early January, and may begin setting bolls by late January.

The main COCOA harvest period is winding down in the principal producing state of Bahia, Brazil, but continues in Para, in the Amazon Basin region of Brazil.

SUGAR cane may be planted in portions of Brazil.

In Australia, the winter WHEAT harvest concludes in southern Victoria and Western Australia during the first half of January.

Some planting of summer grain and oilseed crops may continue into the early days of the month, but most of the summer crops will have advanced to reproductive stages by the latter half of January.

The South African CORN crop enters the reproductive and most moisture-demanding period during January. WHEAT harvesting will conclude early in the month. Some SUGAR cane remains for harvest along the Natal Coast.

February

February crop activity remains slow over most of the Northern Hemisphere crop areas, but land preparation may begin as weather allows.

Summer annual crops in the Southern Hemisphere are well into fruiting and maturation stages.

In the U.S., harvesting of ORANGES for frozen concentrate continues in Florida.

POTATOES are planted in California and northeast Florida. SUGAR cane harvesting continues in Florida.

COTTON planting may begin in Texas along the lower Rio Grande Valley by mid to late February, providing that temperatures have been mild and there has been sufficient sunshine to warm the soil.

A few SUGAR beets will be planted in Arizona. Winter WHEAT may be planted in limited portions of California.

The remainder of the U.S. winter WHEAT crop remains dormant although late February is a favored time for nitrogen application to winter WHEAT in the southern half of the country, weather permitting.

Land preparation for spring planting may begin in the southern through central U.S.

Calving increases across the southern U.S. and may expand into the southern Plains. However, seasonality is not a distinct feature for the "calf crop" in roughly the southern third of the country.

Supplemental feeding of WHEAT, CORN, other feed grains and forages remains high, especially across the northern U.S. where pastures remain largely dormant or are snow-covered. Harsh cold snaps can limit weight gains even in southern Plains feedlots.

In Mexico, COTTON planting begins. The COFFEE and SUGAR cane harvest continues. SUGAR cane harvesting also continues in the Caribbean.

In Europe, crop activity remains low in most of the region except in Mediterranean regions where OATS, barley and spring WHEAT may be planted from mid to late February.

Toward the end of February, small grain planting may spread into central France and the southern U.K., weather permitting.

Winter WHEAT may resume growth in western through southern sections of Europe, but will remain largely dormant elsewhere, particularly in the Baltic Plains.

Winter WHEAT remains dormant throughout the USSR during February.

In India and elsewhere over southern Asia, winter WHEAT begins jointing (stem elongation) in nearly all areas by early February and will reach the heading stage toward the end of February. Some areas may begin ripening by the end of February.

A little SUGAR cane planting may continue in India.

In China, winter WHEAT may resume growth and reach the joint stage (stem elongation) by late February in the southern third of the country. WHEAT will remain dormant elsewhere in China.

SUGAR cane harvesting may continue in southern China. Rice planting may begin in the south. Transplanting to paddies will begin in March.

In the Philippines, SUGAR cane harvesting continues, but planting has normally already peaked so that the new plantings will have become established before the February–April dry season.

In tropical Africa, COFFEE and COCOA harvesting continues north of the equator. A little COTTON may remain for harvest.

In South America, the Brazil SOYBEAN crop begins pod-setting and may start pod-filling by mid-February. Northern areas were already setting pods in late January and may begin approaching maturity by late February. Some Argentine SOYBEANS are still flowering through mid-February, but most areas will have begun pod-filling by the end of February.

Most of the Argentine sorghum crop has reached the heading stage by early February and some may be nearly mature by late February.

CORN is mature in most of Brazil by late February and harvesting may begin in the north. Most of the Argentine CORN crop reaches maturity in February, but significant harvesting does not normally begin until mid-March.

COCOA and COFFEE harvesting is at a seasonal low in most of Brazil except in Para state, where COCOA harvesting continues.

In South Africa, CORN may remain in the reproductive stage through the first week of February. Grain-filling and early maturity occurs from mid through late February.

Elsewhere south of the equator, Australian sunflowers and sorghum advance toward maturity. A little summer grain harvesting may begin in Queensland by late February.

February is the beginning of the SUGAR cane planting season in Australia.

March

By March, land preparation and planting activity begins to quicken across the Northern Hemisphere and winter-sown crops begin renewed growth.

Summer crops in the Southern Hemisphere race toward maturity and planting of autumn-sown crops begins.

In the U.S., cultivation for summer crops and nitrogen application to winter WHEAT increases.

COTTON planting will make rapid progress in the Texas Lower Rio Grande Valley region and will move northward along the Texas Coastal Bend by late March.

CORN planting increases very slowly across minor production areas in the southern U.S. and sorghum planting may begin in southern Texas.

OATS planting begins during the first half of March in the central U.S. and toward the end of March in the Pacific Northwest. Barley planting may begin in western states.

Weather permitting, spring WHEAT may be planted in southern sections of the northern Plains and in southern portions of the western U.S. toward the end of March.

Winter WHEAT resumes growth over all but the far northern sections of the U.S., and may undergo a brief second tillering (new growth from existing roots). This second chance at tillering is especially important if cold temperatures or dryness limited tillering the preceding fall.

Winter WHEAT will begin jointing (stem elongation) by the end of March in the southern U.S.

SUGAR beet planting may begin in a few of the smaller central or southern U.S. growing areas.

Calving increases across the central Great Plains and Midwest in early March and increases in the northern Plains by late March.

Calving and lambing is a more seasonal feature in the central and northern U.S. than in the southern U.S. Late blizzards or cold rain mixed with wet snow can take a toll on new-born livestock, especially in the Great Plains where calves are born on open ranges.

In the Midwest, cattle are usually kept in more protected conditions. However, muddy cowlots can be detrimental to new-born calves.

Pastures resume growth, the likelihood of cold snaps is reduced and supplemental feeding of livestock may be reduced.

In Canada, land preparation for summer crops may begin by the end of March although frozen ground and snow may limit progress in many years. Winter WHEAT in western plains of Canada will remain dormant most years.

In Mexico, COTTON planting increases and winter WHEAT begins to grow rapidly. CORN planting may commence.

In Europe, winter WHEAT breaks dormancy. Spring WHEAT is planted in the middle Danube Basin and portions of the Iberian Peninsula in early March and in all but northern Poland and Scandinavia by late March.

OATS and spring barley planting is active in southern Europe and spreads through all but the far northern sections of Europe by late March..

SUGAR beet and potato planting may begin in central Europe.

In the USSR, spring barley planting begins by late March along the Black Sea coast. Winter WHEAT will resume growth from the southern Ukraine eastward into the Caspian Depression and in the North Caucasus Region, but will remain dormant in the north.

In China, CORN, vegetables and rice planting and transplanting increase in the south. Winter WHEAT resumes growth over all but the most northern areas and may begin jointing (stem elongation) northward through the Yangtze Basin.

Land preparation for COTTON and numerous other crops spreads northward through the Huang Ho Basin of China.

In India, winter WHEAT harvesting begins during early March in southern areas and may start elsewhere in India by late March.

In northern Africa, winter WHEAT enters the heading stage by late March.

In tropical Africa, COCOA may continue to be harvested in Cameroon, but the Nigerian and Ghanaian harvests are complete prior to March.

In South Africa, CORN is still maturing in the main producing areas of Transvaal, but a little harvesting may begin in some of the lesser producing areas. Winter WHEAT and rye planting begins in southern South Africa.

Late-planted SOYBEANS may still be in the pod-filling stage during early March in Brazil and through mid-March in Argentina.

Harvesting of early planted SOYBEANS increases by mid-March in Brazil with a significant portion of the crop harvested from Parana northward by late March.

SOYBEAN harvesting commences in Rio Grande do Sul, Brazil, during the latter third of March and harvesting may begin by the end of March in Argentina.

CORN harvesting increases in Brazil and begins in Argentina. Sunflowers, COTTON and peanuts are also harvested in Argentina.

Land preparation and a little planting of winter WHEAT begins in southwestern Argentina.

There is only limited COCOA harvesting in Brazil, but the COCOA harvest continues in Equador.

In Australia, land preparation for winter WHEAT begins in the south. Planting will not begin until early May. Sorghum and COTTON mature through the month with harvesting beginning by mid to late March.

SUGAR cane is planted along the Queensland Coast.

April

April is the first complete month of spring weather in the Northern Hemisphere. Winter grains begin renewed growth and planting of summer crops begins.

In the Southern Hemisphere, grain crops are usually well beyond maturation and harvesting is under way. Winter grains planting increases.

In the U.S., CORN planting is very active across the southern U.S. by early April and usually begins in the southern half of the corn belt by the last week of April.

Soybean planting begins in the lower Mississippi Flood Plain (Delta), portions of the southwestern U.S., along the Atlantic Coast and may start in Missouri and southern Illinois by late April.

COTTON planting sweeps north through all but the far northern sections of the cotton belt by late April.

Sorghum planting progresses northward from southern and central Texas into southern Oklahoma.

Spring WHEAT planting spreads north from South Dakota, but will not be complete until mid-May.

Spring WHEAT planting will be largely complete in the Columbia and Snake River Basins by late April.

OATS and barley planting is completed in all but the far northern sections of the U.S.

SUGAR beets are planted in all but the far northern areas where planting begins by late April.

POTATO planting begins in mid-April in southern New England and may spread to Maine by the end of the month.

Peanuts are planted in the southeastern U.S. and in southern Texas.

Rice is planted in all but the far northern sections of the Delta.

Farmers across the southern, central and southwest U.S. will begin to gather alfalfa hay during April and baling of other grasses for hay will start in the southeastern U.S.

Winter WHEAT will begin vigorous growth over all but the far northern sections of the U.S.

Winter WHEAT will move through reproductive stages in the far southern U.S. and will begin jointing (stem elongation) and heading through the southern Plains. Flowering and pollination will occur by late April as far north as central Oklahoma, the Delta and extreme southern portions of the soft WHEAT growing areas as far north as the Lower Ohio Valley.

During flowering and pollination, winter WHEAT is sensitive to dryness and heat and extremely vulnerable to even the slightest late-spring frost.

A very small amount of winter WHEAT may be harvested in the minor production areas of extreme southern Texas by the last of April.

In Canada, grain sowing increases in the southern and western sections of the prairie provinces, especially after mid-April.

In Mexico, CORN and SOYBEANS are planted in many areas. Mexican COTTON planting is nearly complete by late April. WHEAT and barley harvesting begins by late April although much of the small grains crop is still ripening.

SUGAR cane harvesting and planting continues throughout the Caribbean.

The European winter WHEAT and winter barley crops reach the heading and early grain-filling stage in the Mediterranean region, but winter WHEAT in northern Europe remains in vegetative stages most of the month.

Spring WHEAT planting concludes by late April in most of Europe. Spring barley planting begins by late April in Scandinavia, but has usually ended in central and southern Europe.

CORN planting starts in France, Italy and in countries around the Lower Danube River.

SUGAR beets planting is under way throughout Europe.

In the Soviet Union, spring WHEAT planting begins during early April in the middle and lower Volga Basin, begins shortly after mid-April in the Upper Volga Basin and expands eastward into northern Kazakhstan. Barley is planted throughout the month in all but the far northern areas, where planting starts by the end of April.

SUGAR beets are planted along the Black Sea by mid-April and planting begins by mid-April in the Northern Ukraine east to the southern tip of the Urals. CORN is planted in Krasnodar and the Crimea.

The Chinese winter WHEAT crop reaches the heading and pollination stages throughout the Yangtze Valley by early April and in the Huang Ho basin by late April.

COTTON and CORN planting in China proceeds northward to the Yangtze Valley by mid-April and may push into the Huang Ho Basin by late April. SOYBEAN planting may also begin in central China, but cool temperatures in northeast China limit planting for another few weeks.

Rice planting and transplanting continues along the south and eastern coast and may begin in the Yangtze Valley toward the end of April.

In India, WHEAT harvesting spreads into central and northern India from early through mid-April and is nearing completion by the end of the month. Saudi Arabia, a recent entrant to the WHEAT exporting club, will begin to harvest its WHEAT crop.

Peanuts are harvested in irrigated coastal areas. SUGAR cane harvesting is winding down in southern India, but continues in the north. A small amount of rice may be harvested along the east coast.

The North African winter WHEAT and barley crops begin to ripen in early April.

In tropical Africa, robusta COFFEE is harvested in Cameroon. Elsewhere, this is only a minor harvest period for COFFEE and COCOA.

The South African CORN harvest progresses rapidly, along with other summer crops. Winter grains are planted in most of the country except in the northwest. SUGAR cane harvesting begins along the coast.

In South America, CORN, SOYBEAN, sunflowers and sorghum harvesting is under way throughout southern Brazil and most of Argentina.

Rice is harvested in northern Brazil and throughout Argentina. COTTON is harvested in the southern third of Brazil and in Argentina. Winter WHEAT planting increases in Argentina and begins in Brazil.

COFFEE harvesting begins in Minas Gerais, Brazil and in portions of Colombia. Citrus harvesting begins in Sao Paulo, Brazil. The intermediate COCOA crop is harvested in Bahia, Brazil, and the main crop is harvested in Para, Brazil.

In Australia, winter WHEAT planting may begin in the far south by late April, but most areas do not begin planting WHEAT until mid-May.

The COTTON and sorghum harvest continues. SUGAR cane planting continues along the northeast coast.

May

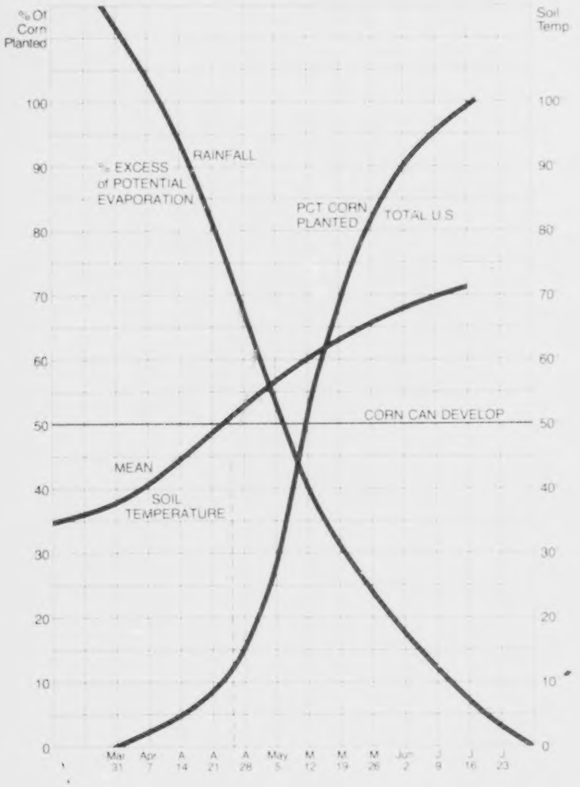
May is probably the most active month for planting of crops throughout the Northern Hemisphere and the principal harvest month in the Southern Hemisphere.

May is the main period for CORN planting across the Midwest U.S. Planting ideally will be completed by early May in the southern U.S. and by no later than late May in the central U.S. If planting is accomplished on schedule, it will allow CORN to be well into, or perhaps beyond, its heat-sensitive reproductive stages before the hottest days of summer arrive.

The most northern CORN areas also need to be planted by late May so the crop will mature before the first hard freeze of autumn. Late planting does not always mean a bad crop but, in general, timely or early planting is better.

SOYBEAN planting normally begins in early

Relationship Between Soil Temperature/Rainfall and Corn Planting



May in Arkansas, Mississippi and elsewhere in the Delta states and spreads rapidly over the Midwest. Planting increases northward to the Great Lakes by mid-May. Early and timely planting is not quite so critical for SOYBEANS as it is for corn.

COTTON planting begins during the first week of May in the Texas High Plains, northern Texas and southwest Oklahoma. COTTON planting is normally complete by mid-May in central Texas, most of the Delta, the Southeast U.S. and Desert Southwest.

COTTON in southern growing areas may be squaring (budding) by the end of May.

Sorghum planting spreads from Texas northward into Oklahoma during early May and into Kansas, Missouri and Nebraska by late May.

Barley planting is normally finished by early May in the northern Plains. OATS and spring WHEAT may be planted throughout May in the northern Plains but planting is usually complete in the southern growing areas by the first week of May.

SUGAR beet planting is complete by the first of May in the Snake River Basin and nearly complete in Nebraska. Planting may continue into late May elsewhere.

Rice planting is completed in Texas and Louisiana and paddies are flooded by the end of May.

Peanuts are planted in much of the southern U.S.

Haying picks up in the central U.S. in early May and first cuttings of alfalfa and other hays have usually occurred in the northern U.S. by the last week of May. Haying will continue actively into the early summer. Haying slows during the hottest part of summer, but will pick up briefly again in early fall. Some of the alfalfa is also dehydrated and pressed into pellets.

Winter WHEAT moves into grain formation stages in all of Texas and Oklahoma by mid-May and begins ripening in southern Texas.

WHEAT harvesting spreads from extreme southern Texas and may reach into south-central Texas by late May.

Kansas winter WHEAT reaches the heading and flowering stages in the south-central part of the state during the first week of May and in the northwest part of the state shortly after mid-May.

Most Nebraska and Colorado winter WHEAT will begin heading by the end of May. Winter WHEAT heading will also begin during the last days of the month in the Dakotas, Montana, Idaho, Washington and Oregon.

Soft winter WHEAT will bloom in the Delta and southern corn states and will reach the heading stage by the end of May in the northern corn belt.

Harvesting of winter-sown barley and OATS will begin in the southern U.S. by late May.

POTATO planting is completed across the northern U.S.

In Canada, May is the key month for planting in nearly all areas for all types of agricultural products, including spring WHEAT, OATS, feed grains and rapeseed. SOYBEANS and CORN are planted around the southern Great Lakes by the end of May. Rapeseed planting begins in early May and is most active mid to late May.

In Mexico, some planting of grain crops may occur in the higher valleys of the Central Plateau while harvesting is occurring at lower elevations. Considerable local variability exists in harvesting vegetables and dry beans.

COTTON planting is over in Mexico and a portion of the crop may begin to square (bud).

A summer crop of SUGAR cane is planted in the Caribbean and harvesting continues.

The European winter WHEAT will begin heading in much of the Lower Danube Basin, southern France and Italy by late May. Winter WHEAT is ripe and near harvest by late May in the Iberian Peninsula, portions of Italy, Greece and some of Turkey.

Heading of winter barley progresses northward through all of Europe. Winter barley may be harvested in the Mediterranean regions.

Spring-sown barley may begin heading by late May in the south. Winter rye is heading in most areas.

OATS and spring WHEAT planting is complete in Scandinavia and may reach the heading stage in extreme southern Europe.

SUGAR beet planting is normally complete in the key production areas by the first of May, but may continue in a few areas through late May.

CORN planting begins in central France and the Danube Basin.

In the USSR, planting of SUGAR beets, which began in April, will conclude in most areas by mid-May, although planting in the Baltic States may continue into late May.

Spring WHEAT planting progresses from southwest to northeast and should be largely complete in the Middle and Lower Volga Basin by May 10 and from the Urals eastward through Siberia by late May.

Spring WHEAT will begin jointing (stem elongation) by late May in the lower Volga Basin eastward into northern Kazakhstan.

A little barley and OATS may still be sown in the northern third of the USSR through late May. Fall-sown barley will begin heading by late May in Krasnodar.

Winter WHEAT and rye will have begun jointing (stem elongation) in most of its area by mid May and begin heading by the final week in May in southern areas.

CORN planting may begin along the Black Sea Coast by the first of May and spread northward through the Ukraine the rest of May.

In India, winter WHEAT harvesting concludes. Rice planting will begin in areas not dependent on monsoonal rains.

Planting in nearly all crops in other areas awaits the arrival of the southwest monsoon, not only for the sake of water, but also for the accompanying drop in temperatures. May through early June is normally the hottest time of the year in India.

In China, winter WHEAT reaches reproductive stages in most of China by the end of May and is nearly ready for harvest in the Yangtze Valley.

COTTON planting will be nearly complete by the first of May in the Yangtze Valley, but continues in the lower Huang Ho basin through the end of May.

CORN planting will be quite active during May. SOYBEAN planting will be nearly complete in many of the southern areas by mid-May and in Manchuria by the end of May. Planting of spring WHEAT, which constitutes only a small portion of China's WHEAT production, is normally completed in the northern semi-arid areas by late May.

Rice planting and transplanting may be complete in a large portion of the country by the end of May with earlier planted areas in the south nearing the heading stage by late May.

Rain returns to Thailand and rice and corn planting begins.

The Saudi Arabian WHEAT harvest concludes during May.

Winter WHEAT and most other small grains will be ripe by mid to late May in much of northern Africa. COTTON planting may continue.

In tropical Africa, COTTON, peanuts and grain sorghum are planted in many areas of the sub-Sahara, depending on the arrival of the rainy season in individual areas.

May is only a minor harvest period for COCOA and COFFEE in most of tropical Africa.

In South Africa, CORN harvesting continues into May and winter WHEAT planting increases in much of the country.

Winter WHEAT is sown in Argentina and Brazil. A winter CORN crop may be planted in the northern grain areas of Brazil.

SUGAR cane will be planted in the northeastern Brazilian Highlands. Rice is planted in a few areas and harvested in others.

A minor harvest period for COCOA continues in Bahia and the main crop is harvested in Para.

The Brazilian COFFEE harvest is already active in Minas Gerais and Espirito Santo and begins in Sao Paulo, Parana and Goias.

A main harvest period for COFFEE concludes in portions of Colombia.

SOYBEANS, CORN, sunflowers, peanuts and COTTON harvesting continues in Brazil and Argentina.

May is normally the main planting period for winter WHEAT in Australia, but in some years, dryness will delay planting into June or July.

June

Early June will still contain some cool days in northern grain and oilseed areas of the Northern Hemisphere, but by late June, all areas have become consistently warm. Most of the world's winter WHEAT starts to ripen while spring grains are moving rapidly through vegetative stages and may reach reproductive stages by late June.

In the U.S., CORN may be planted for grain through mid-June in the central U.S. and until about the third week of June in the northern U.S. In less than a perfect year, however, a good deal of CORN planted much beyond the first week of June will either become forage or face reduced yields.

In the southern U.S., CORN will reach the tasseling stage by late June.

SOYBEAN planting remains active through early June in nearly all areas and may extend into the latter half of June in some areas, particularly where double-cropped after winter WHEAT.

Sorghum planting continues through June in the central U.S.

More than half of the COTTON belt should be in, or past, the squaring (budding) stage.

A small percentage of COTTON may be planted in the Texas High Plains during the first week to 10 days of June and will not square (bud) until very late in June. Some COTTON in the far south may begin setting bolls.

Harvesting of hard red winter WHEAT increases across Oklahoma and the Texas Panhandle in early through mid-June and spreads northward to the Oklahoma/Kansas border by late June. Soft WHEAT harvesting begins in early June in the Southeast U.S. and spreads to the Ohio Valley by the end of June.

Two-thirds of South Dakota's spring WHEAT will head by late June and nearly a quarter of the crop should reach the heading stage in North Dakota and Montana. OATS and barley are harvested in the southern half of the U.S. and may begin to ripen in parts of the corn belt by late June.

In Canada, winter WHEAT in Alberta may begin heading by mid-June and spring WHEAT will begin heading in southern Canada by late June.

The winter WHEAT harvest concludes during June in Mexico. A limited amount of CORN as well as numerous fruits and vegetable products are harvested throughout Mexico.

In the Caribbean, SUGAR cane harvesting ends during June in Cuba. Some late spring planting may continue through June. The northern Dominican Republic and Haiti may continue to harvest SUGAR.

In Europe, winter WHEAT is harvested throughout the Mediterranean region, including a small portion of the Turkish WHEAT crop. Winter WHEAT is ripening in much of the rest of Europe except in the Baltic Plain, where WHEAT remains in the grain-filling stage.

Spring WHEAT begins heading the first and second week of June in central Europe, but is still in the boot stage in the far northern areas through late June.

Winter-sown barley is harvested in the southwestern two-thirds of Europe during June and is ripe by the end of June in the remainder of Europe. Spring-sown barley will begin to ripen by late June in the south and is heading in the north.

OATS will head from southwest through northeast with some harvesting possible in Iberia and the Po Basin of Italy. CORN may begin to tassel in southern Europe.

The USSR winter WHEAT is nearly ripe by late June in southern areas and harvesting will begin from near the Black Sea east into the North Caucasus. Winter WHEAT will have headed throughout its range.

Spring WHEAT sowing is complete by June 1 in Siberia. Spring WHEAT will reach the heading stage southeast of a line from Moscow to the southern Urals and east to Lake Balkhash by the end of June.

Spring-sown barley will head by late June in the southern growing areas and begin heading in the more northern areas.

CORN planting will conclude during the first days of the month.

In China, winter WHEAT harvesting progresses from south to north through Central China and will be largely complete northward to the Huang Ho by late June. Although China's winter WHEAT is at a similar latitude with the U.S. crop, it has more rapid maturation and ripening, induced by drier spring weather in northern China.

CORN may begin to tassel in the far southern extent of its range. SOYBEAN planting remains active through late June in Manchuria, but concludes by mid-June in the more southern areas of China.

COTTON planting will conclude in the lower Huang Ho basin. COTTON begins squaring (budding) in the Yangtze basin. Some COTTON may begin setting bolls by late June in southern China.

Rice will head in the southern third to half of China by late June.

In India, heavy rain and cooler temperatures sweep northward during June, reaching the most important rice areas of north-central and northeast India during the first and second weeks of the month.

Planting of most crops in India is timed to the beginning of the rain. However, some will wait until after the end of the peak of the monsoon so as to escape the heaviest rainfall and associated flooding.

Rice planting continues in Thailand. The North African winter WHEAT and other small grain crops are harvested during the first half of June.

In tropical Africa, June is a minor harvest period for COCOA and COFFEE.

Peanuts are planted in many areas, but some harvesting also occurs. Planting and harvesting of local food crops is largely dependent on the arrival or withdrawal of the rainy season in various locations across the tropical reaches of Africa.

In South Africa, CORN harvesting may continue into June. WHEAT and other small grain planting may continue into June.

In South America, WHEAT planting continues through June in Argentina and Brazil. CORN harvesting has concluded in Rio Grande do Sul, but may last through June elsewhere in Brazil and to a lesser extent in Argentina.

The SOYBEAN harvest is complete in Argentina and Brazil by early June. A few sunflowers may still be harvested in Argentina.

SUGAR cane is planted in northern Argentina and in northeastern Brazil. SUGAR cane is harvested in the more southern areas of Brazil. COTTON is harvested in Brazil and Argentina.

COFFEE and ORANGES for Brazil's expanding concentrate industry are harvested in Brazil.

Para, Brazil, is in its main COCOA harvest period while the intermediate COCOA harvest continues in Bahia.

In Australia, winter WHEAT seeding remains active through the first weeks of June and is nearly complete by the last days of June unless planting has been delayed, most often by dryness. Adequate moisture is needed June through July to ensure good germination.

SUGAR cane harvesting begins in northern Queensland as the rainy season slowly abates.

July

July is probably the pivotal month in grain production in the Northern Hemisphere. During July, most spring-sown grain crops enter into and may largely complete their reproductive cycles. Adequate soil moisture is essential.

Temperatures in the far northern areas must be warm enough to ensure that crops grow rapidly. However, heat can have an undesirable effect on pollination in the middle latitudes especially if sustained for successive days.

In the U.S., CORN will proceed through the tasseling and silking stages in the Midwest. In the southern one-third of the U.S., CORN will advance rapidly through the dough (grain formation) stage and may be nearly mature by late July.

A few SOYBEANS may be planted during the first 10 days of July, mostly on land from which winter WHEAT has just been harvested. Three-quarters of the SOYBEANS will have produced blossoms by the end of the month with as much as one-third of the crop setting pods.

July is the most important harvest month for winter WHEAT in the central U.S. although in some years, a significant portion of the crop may have been harvested during the last days of June.

Harvesting of hard red winter WHEAT is normally in its final stages in northwest Oklahoma and the northern Texas Panhandle by the first of July, is in the wrapping-up stages over all but the far northwest corner of Kansas by July 10, and is largely completed in Nebraska and Colorado by July 25. The winter WHEAT harvest expands into the northern Plains by late July and extends east across the Midwest into the lower Great Lakes region.

Winter WHEAT will be harvested in the Snake and Columbia River Valleys from mid through late July. Winter WHEAT harvesting begins in Montana by late July and continues into early August.

Spring WHEAT harvesting may begin in South Dakota by the last week of July. Barley and OATS harvesting is under way across the Midwest.

Rice moves through the heading stage in Texas, southern Louisiana and the southern Delta and begins to head by late July in the northern Delta rice areas.

Three-quarters of the sorghum crop is headed by the end of July in the southern U.S. and just beginning to head in the more northern growing areas by the end of July. Sunflowers bloom in the northern Plains.

COTTON sets bolls across the southern third of the belt by the end of July and will advance rapidly through blooming and toward boll-setting elsewhere.

Harvesting of SUGAR beets may begin in limited areas of California from early spring plantings.

A few POTATOES may be dug toward the end of July in the Columbia River Basin.

In Canada, the limited portion of Alberta sown to winter WHEAT may be ready for harvest along with some early planted spring WHEAT fields by the last of July. Otherwise, most of the crop will have advanced through pollination into early grain-formation stages by the end of July.

Portions of Mexico's CORN crop may be harvested during early July and a little COTTON may be harvested toward the end of July. Numerous fruits, vegetables and dry beans will be harvested in Mexico in July.

The European winter WHEAT harvest continues during early July in the Mediterranean region, including Turkey, and advances slowly northward, approaching the Baltic and North Sea Plains by the end of July. Spring barley and fall rye harvesting follow a similar pattern across Europe. Winter-sown barley harvesting is completed in the Mediterranean area and will progress rapidly north through the remainder of Europe.

Spring WHEAT and spring OATS are still heading and pollinating in northern Europe early in July. Harvesting of spring WHEAT and barley may begin in central Europe by mid-July.

The European CORN crop, located mainly in France, northern Italy and the middle-through-lower Danube Basin, will move into the reproductive stage by late July.

In the USSR, the winter WHEAT harvest that began in late June along the Black Sea Coast will progress northward into the key growing areas of the northern Ukraine and Black Earth crop regions. Most of the USSR winter WHEAT crop is harvested from July 10–30.

Spring WHEAT will be ripe with some limited harvesting possible by the end of July in the lower and middle Volga River Basin. The northeastern areas of the New Lands may still be in the boot stage through mid-July with heading and pollination occurring by late July.

Barley, a principal feed grain in the USSR, will be harvested during early July in Krasnodar, by mid-July along the Black Sea, and by late July from the western Ukraine eastward into the eastern Black Soils region.

CORN will enter the reproductive stage the last half of July.

In China, the monsoon becomes well established throughout all crop areas during July.

The winter WHEAT harvest ends north of the Huang Ho River by early July and ideally just ahead of the arrival of the wet monsoon.

SOYBEANS and CORN will enter reproductive stages. Most of central and northern China's rice crop will head in early July and begin turning color by late July. Rice is more advanced in the south.

COTTON sets bolls in the Yangtze Basin by early July and in the Huang Ho Basin by mid to late July.

In India, the wet monsoon will reach its maximum extent and intensity during July.

Indian and Thailand rice will be in the boot-to-early-heading stage.

The small grain harvest will be complete in early July throughout North Africa.

In tropical Africa, COFFEE is harvested in Angola. July is a minor harvest period for COCOA in Nigeria.

Dry, cool weather in South Africa's coastal cane areas make July the favored time for plowing up old, ratooned SUGAR cane fields and replanting them. Summer grain harvesting is largely complete and winter grains are semi-dormant.

In South America, the last of the winter WHEAT crop will be planted in Brazil. Most of Argentina's winter WHEAT crop is dormant in the south and semi-dormant in the north during this coolest month of the year. Occasionally, planting may continue into July in northern Argentina.

The COFFEE harvest is active in Brazil. SUGAR cane and ORANGES for concentrate are harvested in southeast Brazil.

The COCOA harvest remains active in Para and to a lesser extent in Bahia.

The Australian SUGAR cane harvest continues. Little activity occurs in the grain areas unless planting had been delayed by earlier dryness.

August

August is also a very important month in the Northern Hemisphere crop cycle. Except for SOYBEANS, most crops are either finishing or have ended their reproductive cycles by early August and are in the fruit formation period.

Small grains are ripening with a good part of them harvested by the end of August in all but the far northern growing areas. Extremes in rainfall and temperature can still be very instrumental in determining crop size in August.

In the U.S., SOYBEANS set and fill pods in August, but late-planted soybeans may continue to flower into mid-August and not set pods until late August nor begin filling pods until early September.

CORN will be harvested in the extreme southern U.S. Elsewhere, CORN is in the dough (grain development) stage during August with over half of the crop reaching the dent (early maturity) stage by the end of August.

Harvesting of spring WHEAT may be complete by mid-August in South Dakota. Spring WHEAT harvesting begins in North Dakota and Minnesota and will be half completed by late August. Barley and OATS follow a similar schedule in these northern states.

COTTON bolls will open on 10 to 30 percent of the U.S. crop by late August. COTTON harvesting will spread through the Lower Rio Grande Valley in early August and may reach the Coastal Bend area of Texas by late August.

Rice harvesting begins early in August along the Gulf Coast and is nearly complete by late August. Rice harvesting begins after mid-August in the lower Mississippi River flood plain and continues into September.

Sorghum harvesting continues along the Gulf Coast and will push further into central Texas by mid-August. Elsewhere, maturation is nearly complete with a significant portion of the crop headed and turning color by late August. Sorghum double-cropped after WHEAT may remain in vegetative stages of development through late August, but will begin heading in early September.

Sunflowers are nearly mature in the northern Great Plains by the end of August. Peanut harvesting may begin by mid-August in the southern Plains and Southeast U.S.

The winter WHEAT harvest will be largely complete by mid-August in the Columbia and Snake River basins, but will continue into late August in central Montana and the valleys of the northern and western U.S. Winter WHEAT planting may begin by late August in the northern U.S., although significant progress does not begin until early to mid-September.

POTATO harvesting may begin by late August in southern New England, Oregon and southern Washington. POTATO vines are just starting to die back in northern portions of New England, North Dakota and Idaho by late August.

In Canada, spring WHEAT harvesting is active throughout the month, with other crops, including rapeseed, rapidly reaching maturity by late August.

In Mexico, CORN, COTTON and numerous fruits and vegetables are harvested. The SUGAR cane harvest ends, but will resume again in November.

Harvesting of SUGAR cane is active in Cuba as well as other sections of the Caribbean. Planting of cane may occur in the Dominican Republic and Haiti.

In Europe, the winter WHEAT harvest continues in northern areas through the first half of August.

Spring WHEAT harvesting begins in early August in central and northern Europe and is nearly complete by the end of August.

Barley and OAT harvesting schedules are near or slightly ahead of spring WHEAT harvest dates in northern Europe.

CORN development moves from dough (grain formation) stages into the early maturation stage in southern France, the Po Basin and in the Middle and Lower Danube Basin by late August. CORN remains in the dough stage through late August in northern France. Rape harvest begins in early August in Europe and increases through late August.

USSR spring WHEAT harvesting progresses steadily from the Black Soil region, middle Volga Basin and Kazakhstan in early August and through northern and eastern fringes of the New Lands region toward the end of August.

Barley harvesting will be completed in early August from the Northwest Ukraine eastward to the Middle Volga Basin, but will continue through the end of August from the Baltic States east across the upper Volga Basin into Pavlodar.

Harvesting of winter WHEAT and rye will conclude during the first days of the month along the northern extent of those crop areas. Planting of those same crops commences by mid to late August in the northern grain areas of the USSR.

CORN will move into the dough (grain formation) stage in the southern USSR and may reach early maturity by late August.

In China, SOYBEANS pass from the pod-setting into the pod-filling stage.

COTTON harvesting may begin by late in the month south of the Yangtze River. CORN nears maturity toward the end of the month in the southern crop areas.

August is the main rice harvesting period in much of China.

In India, the monsoon continues and flooding may have become extensive. A small amount of rice for winter harvest may be planted through early August. Otherwise, most of the crop will be in late vegetative stages of development or just reaching the heading stage. Similar development occurs in Thailand.

Peanuts and COTTON remain in the vegetative stage of development in most of India.

Corn harvest begins in early August in Thailand and increases through late August.

In the tropical crop areas of Africa, August is only a minor harvest period for COCOA and COFFEE north of the equator.

COFFEE harvesting is under way south of the equator and in portions of the East African Highlands.

Peanut harvesting may begin during August in minor production areas. Palm coconuts are harvested in Africa.

In South America, winter WHEAT is largely dormant in Argentina and in southern Brazil, but growing rapidly and heading and ripening in northern Brazil. WHEAT harvesting makes rapid progress southward through Parana, Brazil, by late August.

In Brazil, COFFEE is harvested in much of its range.

Para, Brazil's, main COCOA harvest continues while the "light" harvest continues in Bahia, Brazil. The main COCOA harvest will begin in Bahia in September.

SUGAR cane harvesting continues in Sao Paulo, Brazil and spreads northeast through the remainder of Brazil. The ORANGE harvest remains active through August.

Elsewhere in the Southern Hemisphere, planting of spring crops may begin by late August in the more northern crop areas of Australia. Winter WHEAT remains semi-dormant in the main growing areas of Australia, but is heading in southern Queensland.

SUGAR harvesting continues along the northeast Australian coast.

September

By September, the small grain harvest has normally peaked over all but the far northern areas of the Northern Hemisphere, but CORN, COTTON, SOYBEANS and several other crops remain in fruiting and early maturation stages in several areas.

While September is one of the final months for summer crops, it marks the beginning of sowing for winter crops.

In the U.S., CORN enters late grain-filling and begins maturing during September.

While more than 80 percent of the southern U.S. CORN crops has attained full maturity and is in final stages of drying by early September, only about 10 percent of the total U.S. crop is mature and safe from frost.

By mid-September, a little over one-third of the crop is mature and by late September, more than 75 percent of the total U.S. CORN crop has reached maturity.

By the end of September, up to 10 percent of the total U.S. CORN crop has reached the bin, including

5 percent or more in some key CORN producing states.

Shortly after mid-September, SOYBEAN harvesting begins in the Midwest and the total crop is about 10 percent harvested by the end of September. More than half of the SOYBEANS will be dropping leaves by the end of September, including over 75 percent of the fields in the Midwest and 25 to 50 percent across the southern U.S.

Sorghum harvesting occurs throughout the month in all but the far northern growing areas, where late growth and maturing continues.

SUGAR beet and sunflower harvesting may begin across the northern U.S. toward the end of September. SUGAR beets may be planted in California and Arizona.

Peanut harvesting is active throughout September in the southweastern U.S. and may begin in mid-Atlantic states and Texas by late September. The Georgia crop may be two-thirds harvested by the end of the month.

COTTON harvesting begins in southern portions of the Desert Southwest and from central Texas east through the Delta into the Atlantic Coast. But only a small part of the total crop is normally harvested by the end of September.

September is the most active harvest time for rice in the lower Mississippi Valley. The rice harvest will begin in California by the end of the month. Only small amounts of the Texas rice crop are left for harvest.

Small amounts of spring WHEAT may be left to harvest during the first days of September in the northern Plains.

Planting of winter WHEAT progresses out of the northern High Plains into the heart of the hard red winter wheat belt and then eastward into Midwestern soft winter WHEAT areas by late September.

Total U.S. winter WHEAT planting is normally 50 percent complete by the end of September. Plant scientists have been urging producers to plant WHEAT later in recent years to help prevent diseases and have provided producers with WHEAT varieties designed for a shorter fall season.

Some winter WHEAT continues to be planted early purposefully in the southern Plains, where it will be used for fall and winter pasture.

OATS and barley planting will occur in the southern through central states in early to mid-September.

September is the main harvest period for POTATOES across the northern U.S.

In Canada, harvesting of most crops nears completion during the first half of the month and the rapeseed harvest has usually peaked.

Winter WHEAT may be planted in central Alberta through mid-September.

In Mexico, the COTTON harvest is active nationwide. CORN, SOYBEAN and edible dry bean harvesting continues. Some winter vegetables are planted in Mexico during September and WHEAT sowing may begin in high valleys.

In the Caribbean, the fall planting of SUGAR cane begins in Cuba.

In Europe, winter WHEAT, barley and rye are sown in the northern sections of Europe and in high valleys southward to the Mediterranean. Winter rapeseed planting increases in northern Europe. Harvesting of the current rapeseed crop continues.

Some of the spring small grain crop remains for harvest during early September in the north.

CORN is harvested in the Danube and Po Basin during the latter half of September. SUGAR beet harvesting begins across Europe.

In the Soviet Union, September is the main planting month for winter WHEAT and rye since temperatures will become too cool later in the year for the grain to develop an adequate root system to withstand the normally cold Russian winters.

In the more northern areas, planting is largely completed by mid-month, while southward along the Black Sea, planting is beginning by September 15, and will continue into October.

Thirty-five percent of the USSR total grain crop remains for harvest during September. Most of the CORN fodder crop has already been harvested in August, but CORN for grain remains to be harvested from late September into October.

Harvesting of the USSR SUGAR beet crop may get started along the northern extent of the growing area. COTTON harvesting begins in most areas.

In China, the availability of soil moisture following the summer monsoon, along with the rapidity with which cold weather arrives in the fall, means that most of the winter WHEAT crop will be planted during September, especially north of the Huang Ho.

WHEAT planting may begin in the more southern areas, but is able to continue well into October and November southward through the Yangtze Basin.

The rice harvest progresses from south to north. COTTON is harvested northward to the Huang Ho Basin.

In India, rice harvesting is occurring in the north. Rice harvesting is occurring over much of Thailand, and the Thai corn harvest continues.

Indian COTTON advances to the boll-setting stages with a small portion of the crop nearly ready for harvest.

WHEAT planting begins late in September in northwest India, but most of the crop will not be planted until after mid-October.

SUGAR cane is planted in the Ganges Basin. In southern India, SUGAR cane harvesting may begin.

Across North Africa, the peanut and COTTON harvest begins. Land preparation for winter small grains will occur, but planting will be delayed until the resumption of the Mediterranean rainy season, normally in late October or early November.

In the tropical areas of Africa, COCOA and COFFEE harvesting begin in a few areas during September north of the equator as the rainy season slowly abates.

South of the equator, September marks the resumption of the rainy season and the end of the main harvest season for COFFEE and COCOA.

Newly planted and ratoon SUGAR cane crops are harvested in Mauritius.

In South America, CORN planting may begin in central Brazil by late September. COTTON is planted in a few areas.

SOYBEAN planting normally holds off until mid-October.

The winter WHEAT harvest wraps up in early September in northern Brazil, but the 30 to 35 percent of the Brazilian crop grown in Rio Grande do Sul is just moving into the heading stage.

The COFFEE harvest is virtually complete in Brazil and trees may begin their first flush (bloom) period by late September. Most of the COFFEE tree blooming will hold off until October when soil moisture has increased to more favorable levels following the end of the dry season.

The main COCOA harvest begins in Bahia, Brazil. The SUGAR cane harvest remains active along Brazil's central coast and begins in northern crop areas in mid-September.

In Argentina, planting of CORN, COTTON and rice may start toward the end of September.

Small amounts of peanuts and CORN may be planted by late September in Uruguay.

In Colombia, a small amount of COFFEE is harvested.

In Australia, winter WHEAT, barley and OATS advance rapidly from semi-dormancy to the vegetative stages with northern WHEAT areas reaching the headed stage by the last week of September. Small amounts of CORN, sunflowers, and sorghum may be planted in northern areas, but most planting of these crops will hold off until later.

In South Africa, winter WHEAT resumes growth and moves rapidly into jointing (stem elongation) and reproductive stages.

Land preparation for summer grain and forage crops is under way, but no planting will occur until October, when the rainy season begins.

September is the beginning of the SUGAR cane planting period along the Natal Coast of South Africa.

October

October is the main harvest period for feed grains and oilseeds and the COTTON harvest is usually well under way. In the northern middle latitudes it is also the main planting period for winter grains.

October is also a significant month in the Southern Hemisphere as winter grains ripen and planting of summer crops begins.

October is the principal CORN and SOYBEAN harvest month in the U.S., with only 25 to 30 percent of these crops normally remaining in the field beyond the end of October.

The sorghum harvest is nearly complete in the southern U.S., but continues through the first half of October in the central U.S. with 80 percent of the crop harvested by the end of October.

Winter WHEAT planting is nearly complete in the northern and western Plains by early October, but continues through October from central Kansas and Oklahoma south into Texas and east across the southern corn belt. A significant portion of the WHEAT will have emerged by late October.

COTTON harvesting begins in California, Arizona, and the Texas High Plains. Harvesting will be complete in 40 percent of the western COTTON areas by the end of October and 50 to 70 percent of the Delta through the Gulf Coast states.

Peanuts are harvested during October in the mid-Atlantic states, Oklahoma and Texas, and the remaining one-third of Georgia's peanuts will be harvested.

October is the principal harvest period for SUGAR beets.

SUGAR cane cutting begins in Florida and Louisiana around mid-October. About one-third of the Louisiana cane crop is replanted each year and planting is largely concluded by the last week of October, giving the plants time to grow before cooler weather induces dormancy.

POTATO harvesting is normally complete by the first week of October in the main production areas across the northern U.S.

The Canadian small grain and rapeseed harvest normally concludes by the first of October.

In Mexico, COTTON harvesting remains active. The main CORN harvest begins about mid-October although some CORN will have already been harvested. The dry bean harvest is active. Winter WHEAT planting will occur in many areas.

In the Caribbean, some SUGAR cane is planted, but little or no harvesting occurs.

In Europe, most of the winter WHEAT, barley and rye crop is planted during October. Winter rapeseed is also sown at this time.

CORN for grain harvesting begins in France and continues in the Danube Basin. The harvest will be completed in northern France and most of the Danube basin by the end of the month. Fifteen to 20 percent of the total French CORN crop may remain for harvest until November, mostly in southwest France.

SUGAR beet lifting (harvesting) becomes very active across central and northern Europe and may enter into final stages across southern Europe.

In the USSR, winter WHEAT planting is mostly complete in the northern Ukraine and eastward into the central Volga Basin, but continues through mid-month from Moldavia eastward across the Lower Volga and southward into the Trans-Caucasus region.

Some grain and pulses may remain for harvest in the eastern grain areas. The bulk of the CORN for grain harvest occurs in October, although the CORN fodder harvest is usually over.

SUGAR beet lifting (harvesting) spreads north to south through the USSR.

In China, winter WHEAT planting is complete during the first week of the month in most of the Huang Ho Basin, but continues active in the Yangtze River Basin and southward.

SOYBEANS and CORN are harvested throughout China. The first two weeks of October are the main harvest period for COTTON in the lower Huang Ho Valley.

In India, harvesting of summer rice continues into October. The harvest of other crops, such as peanuts and COTTON, will begin as the wet monsoon slowly abates.

During an active tropical cyclone season in the Bay of Bengal, dry weather may not resume along the central and northern east coastal areas until late October. Despite the slackening of the tropical cyclone season, the more southern areas of the east coast of India will continue to have moderate to heavy rainfall beyond late October.

Barley and winter WHEAT planting shifts southward through the Ganges Basin.

Drier weather over much of South Asia coincides with the rice harvest.

In North Africa, limited portions of the area's winter WHEAT crop may be sown. COTTON and peanuts are harvested.

In tropical Africa, the peanut harvest begins across the sub-Saharan regions. Nearer the equator, drier weather develops as the rainy season shifts toward the south and the major harvest of Arabica COFFEE and of COCOA begins. Robusta COFFEE is harvested from November through March. SUGAR cane harvesting is under way in Mauritius.

Argentina's winter WHEAT resumes growth by early October and a portion of the crop will have advanced to heading and flowering stages by the end of October.

WHEAT in northeast Argentina may have reached grain filling through early ripening stages by the end of October.

WHEAT harvesting begins in Rio Grande, Brazil, toward the end of October, but most of the crop remains for harvest in early November. In the more northern areas of Brazil, WHEAT harvesting concluded earlier.

SOYBEAN planting begins by mid-October in central Brazil and spreads southward. CORN planting—that began late in September—increases rapidly through October. COTTON planting concludes in Brazil and has neared its peak in Argentina by the end of October.

CORN and sunflower planting spreads from northeast to southwest across Argentina. SOYBEAN planting will start toward the end of the month in Buenos Aires and spread northward.

Rice planting is active along the northern and central Brazilian coast by early October and may begin in southern areas by late October.

SUGAR cane harvesting is active in all but the most southern areas of Brazil.

The main crop of COCOA is harvested in Bahia, Brazil, during October.

Brazilian COFFEE trees are in their flush (blooming) period, making the timely resumption of the rainy season very important to the coming year's crop.

In Australia, winter WHEAT advances rapidly into heading, flowering and grain-filling throughout Australia and harvesting may begin in the main northern areas by late October. Ripening and harvesting of barley and OATS may precede WHEAT by about one week.

Planting of summer feed grains and oilseeds make rapid progress.

SUGAR cane harvesting decreases in the southern areas of Coastal Queensland and ends in the northern areas.

In South Africa, limited portions of the winter WHEAT crop may be harvested late in the month in the traditional corn belt regions, but WHEAT in the more southern sections of the country will have only advanced to heading and early ripening by the end of the month.

CORN planting may begin during the last days of October in South Africa if the rainy season arrives on schedule. Several inches of rain must fall to replenish the considerable depletion of soil moisture that will have developed during the preceding 5 to 6 months of normal drought.

November

For most of the Northern Hemisphere, November is the winding-down month for field crops. The bulk of the winter grain plantings has passed and the summer crop harvest is either complete or in final stages.

In the Southern Hemisphere, planting continues in southern areas, but some crops are well into vegetative development stages by late in the month and may start their reproductive stages.

In the U.S., SOYBEAN harvesting peaks during November across the southern U.S., where over 50 percent of the crop remains for harvest at the first of the month.

In the Midwest, SOYBEAN harvesting has usually peaked in October with only 10 to 40 percent of the crop remaining for harvest during November.

During the first two weeks of the month, the bulk of the remaining 40 to 50 percent of the U.S. CORN crop is harvested.

November is a significant COTTON harvesting month in Texas and California. Sixty to 70 percent of the crop is still in the fields at the first of November, but only 10 to 30 percent remains by the end of the month. Elsewhere, the COTTON harvest will advance from 60 to over 90 percent completed.

Sorghum harvesting is over half complete by the first of November and will progress to near completion by the end of November.

Small amounts of winter WHEAT may still be planted in the central U.S. during the first two weeks of November, but cool temperatures will rapidly become a limiting factor in the success of WHEAT planted in the Midwest after mid-November.

A fairly large percentage of winter WHEAT may still be planted in the Delta, the Southeast U.S. and in California, where temperatures remain sufficiently mild for WHEAT germination well into December.

If the fall harvest pace has been successful, fall plowing will begin across the Midwest in preparation for next summer's crops.

SUGAR cane harvesting increases in Louisiana and Florida and SUGAR beet harvesting concludes in the northern states and California.

In Mexico, winter WHEAT planting increases. CORN, SOYBEAN and dry bean harvesting continues. The COTTON harvest nears completion. Winter crops of vegetables are planted. SUGAR cane harvesting begins.

Cuba will begin harvesting SUGAR cane shortly after mid-November, but the bulk of the harvest does not occur until much later.

Elsewhere in the Caribbean, cane is planted through the first half of the month.

In Europe, winter WHEAT, rye, OATS and barley are planted throughout the Mediterranean area. Only small portions of the winter WHEAT crop remain to be planted during the first days of November in central Europe. Planting of winter grains is complete along the Baltic and North sea margins. SUGAR beet harvesting continues through November.

At the start of November, about 15 percent of the CORN crop remains to be harvested in France, mostly in the southwest. Harvesting normally is completed in France by mid to late November.

In the Soviet Union, the USSR winter WHEAT crop eases into dormancy during November in most of the main growing areas, although some planting may continue in the extreme south through early November.

SUGAR beet harvesting concludes during the first days of November in the southern growing areas. COTTON harvesting may continue in southern republics through mid-November.

In China, some winter WHEAT may be planted during the first part of November south of the

Yangtze River. Rice harvesting continues in southern areas.

SUGAR cane may follow rice in areas not normally endangered by frost. In coastal areas south of Shanghai, rapid SUGAR cane harvesting will occur and harvesting will begin slowly along the southern coast and continue into March.

Wheat planting increases from the Middle East into Southern Asia, including Saudi Arabia.

In India, winter WHEAT is planted across northern areas, COTTON harvesting continues, and SUGAR cane harvesting moves into full swing.

The Indian winter rice crop begins to mature during November. Harvesting of the summer crop continues.

The Thai rice harvest begins to wind down by late November.

Winter peanuts may be planted in areas of India where short rainfall is not a problem, but for the bulk of the total peanut crop in India, harvesting is concluding in the north and is in full swing in the central and southern areas.

SUGAR cane harvesting and planting in the Philippines begins in November and continues into February. The start of both activities is tied to the ending of the typhoon season, usually by early November.

In northern Africa, winter grain planting begins along the Mediterranean and will continue into late December. COTTON harvesting continues.

In tropical Africa, COCOA and COFFEE harvesting moves into full swing north of the equator as the rainy season drifts south of the equator. Rice, sorghums and peanuts are harvested.

In South Africa, CORN planting increases rapidly during the first half of November, providing the rainy season returns to break the normal winter drought there. WHEAT harvesting precedes the gradual expansion of rain over the areas.

In South America, November is the main SOYBEAN planting period in Brazil. Some planting may have already begun in the northern areas of Brazil about mid-October.

CORN planting continues in southern Brazil, but will have normally finished in the northern grain areas. COTTON planting concludes in Argentina.

Winter WHEAT harvesting moves into full swing in southern Brazil and will be nearly complete by the end of November.

In Argentina, WHEAT in the main crop areas is still in late grain filling through ripening stages during the first half of November. The Argentine WHEAT harvest may begin in Santa Fe and northern Buenos Aires after mid-November. WHEAT will begin ripening in southern areas of Argentina toward the end of November.

Argentine CORN planting nears completion by mid-November with SOYBEAN, sunflower and sorghum planting nearly complete by the end of November.

SUGAR cane harvesting in Brazil diminishes in the southern areas, but continues along the northeast coast.

Harvesting of COCOA continues active in Bahia, Brazil, and to a lesser extent in Para.

In Colombia, the main COCOA harvest continues. Small amounts of COFFEE are harvested.

In Australia, winter WHEAT harvesting progresses from southern Queensland southward into New South Wales. In the more southern areas, and westward to Western Australia, the winter WHEAT crop advances from early grain filling stages to ripeness. These areas will be harvested during December.

Harvesting of barley, one of the main feed grains in Australia, begins toward the end of the month in south Australia, but will have started around mid-November in New South Wales. Barley harvesting will be complete before mid-November in Queensland. Summer crops of CORN, sunflowers and sorghum are planted.

The SUGAR cane harvest ends all along the Queensland coast by early November.

December

By December, the first significant and fairly permanent snows of winter begin to cover Northern Hemisphere northern grain areas, halting field work but providing a protective blanket of snow for winter grains.

If there were serious harvest delays because of wetness earlier in the year, freezing temperatures during December may firm soils so that harvesting can resume.

Prior to soil freezing, fall plowing may occur, as part of the initial preparation for planting the following spring.

In the Southern Hemisphere, summer crops enter their main fruiting periods and any shortage of moisture would become critical for the first time since planting.

Specifically, 10 to 40 percent of U.S. COTTON remains for harvest in the western U.S. during December with lesser amounts remaining for harvest during the first half of the month in the Delta and Southeast.

Small portions of the CORN crop normally remain to be harvested in early December. Soybean harvesting may continue in the southern U.S., and small portions of the Texas peanut crop may remain for harvest.

Winter WHEAT, OATS and barley are still being planted in southern states and California, but in the main northern growing areas, planting of winter WHEAT is complete and most of the crop slips into dormancy.

Citrus harvesting increases by mid-December in Florida, the Lower Rio Grande Valley of Texas and in California. Ten to 20 percent of the crop, mostly for table use, has been harvested by the end of the month in Florida. January marks the start of harvest of ORANGES processed for concentrate in Florida.

Supplemental feeding of livestock increases during December in order to keep weight gains at acceptable levels during cold weather and to offset the reduced carrying capacity of snow-covered pastures.

In Mexico, SUGAR cane harvesting begins. Some COTTON, CORN and dry edible beans remain to be harvested. Planting of winter vegetables continues.

In Europe, winter WHEAT may still be planted in the Mediterranean region, but most of the crop slips into dormancy in northern areas.

SUGAR beet lifting (harvesting) may continue well into December, especially if delayed earlier.

In the USSR, winter grains are dormant in all but the southernmost areas by mid-December. Snow cover becomes permanent over the northern areas and semi-permanent in the central and southern areas.

China's SUGAR cane harvest continues and planting follows, either as part of a crop rotation or as ratoons are dug out and replaced.

A small amount of rice may remain for harvest in China during the first days of December. Winter WHEAT becomes dormant by mid-December in most of the important production areas of China, but planting may continue in rotation with rice along the southern coast.

The Philippine SUGAR cane harvest continues as does planting.

In India, winter WHEAT may still be planted. SUGAR cane and rice harvesting continues, especially in the south. COTTON harvesting continues through most of December in India.

In North Africa, cooler temperatures coupled with increased rainfall usually produce favorable soil moisture across most of the region and winter WHEAT planting reaches a peak.

In tropical Africa, COTTON, sorghum and, to a lesser extent, peanuts, are harvested along the northern fringes of the tropics. COFFEE and COCOA are harvested in the main production north of the equator.

In South America, SOYBEAN planting is nearly over in northern areas, but 40 to 50 percent of the crop may still be planted in southern areas of Brazil with most of that completed during the first half of the month.

WHEAT harvesting is completed in Brazil by early December and that land may be replanted to SOYBEANS by late December or no later than early January.

December is the main harvest month for winter WHEAT in Argentina, especially in southern Buenos Aires by mid to late December. Harvesting in northern Argentina may be more than half complete by early December.

Small amounts of CORN may still be planted in Argentina during the first days of December, but sorghum and SOYBEAN planting continues through the end of December.

Sunflowers are planted in Argentina. COTTON begins squaring (budding) in Argentina and Brazil and flaxseed harvesting begins.

CORN advances into tasseling and silking stages by mid-December in northern Brazil and by late December in southern Brazil. Argentine CORN begins tasseling during the latter half of December.

SUGAR cane harvesting diminishes in Brazil. The main COCOA harvest continues in Bahia, Brazil, and the minor COCOA harvest begins in Para, Brazil.

In Australia, WHEAT harvesting is nearly complete in the northern areas by early December, but continues in the central through southern areas through late December. OATS are harvested at a similar pace to WHEAT, but the barley harvest is normally a little faster.

CORN, sorghum, sunflower and COTTON planting continues in Australia.

The South African winter WHEAT harvest is completed by early December. CORN planting may continue into the early days of the month, but most of the crop has already germinated and is well into vegetative stages by mid-month.

SUGAR cane harvesting is very active along the Natal Coast during December.

FOREIGN EXCHANGE OPTION BASICS

BY BEVERLY BELL

Foreign exchange (FX or currency) options are highly leveraged financial instruments which allow investors and traders to hedge positions in the currency futures and cash markets. They also provide opportunities to profit with limited risk from exchange rate movements.

Foreign exchange *futures* began trading on the Chicago Mercantile Exchange (CME) in 1972. *Options* on Deutsche mark (DM) futures were listed in January 1984, followed by options on British pound (BP) and Swiss franc (SF) futures in early 1985. The prices of these options track those of the underlying FX futures which, in turn, track the cash currency.

To date, the CME's currency futures options are part of the CFTC's Commodity Options Pilot Program. Hence the Commission has not allowed the exchange to list options on other FX futures contracts. This was unfortunate for the Exchange members in the fall of 1985 when the Japanese yen was very volatile. An option on yen futures would have offered many trading opportunities. But a rising dollar in 1985 triggered volatility in other currencies and increased market activity. For example, on the Chicago Mercantile Exchange volume in DM futures rose 17% over the previous year while volume in options on DM futures was up almost 115%.

Here our discussion concerns the currency futures options listed on the CME. All of our examples use the DM contract, the most actively traded option. You should know, however, that FX options are also traded in the U.S. on the Philadelphia Stock Exchange and the Chicago Board Options Exchange. Options listed on those exchanges are on cash currencies, not currency futures. The similarities of the two option types have created some arbitrage opportunities in an otherwise extremely efficient market. But for now, we will save options on cash currencies for another time.

This article discusses:

- how and where foreign exchange pricing information originates (the interbank market);
- the features of foreign exchange options;
- how options are priced;
- some typical option trades.

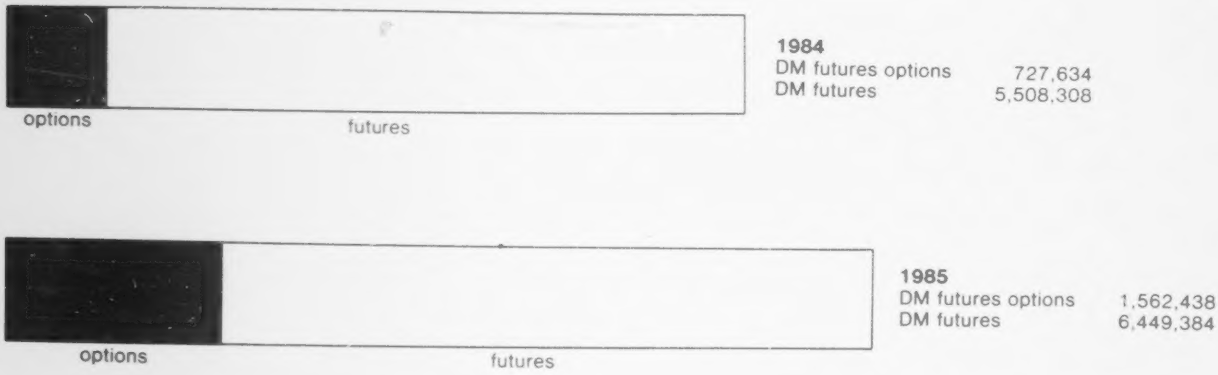
Foreign Exchange Pricing Information

The major players in the "upstairs" or "interbank" foreign exchange market (as opposed to the exchanges — the "downstairs" market) are international money center banks, multi-national corporations and governments. Very few individuals participate "upstairs" since the smallest transaction is $1 million and those of $25–50 million are not uncommon.

Sources inside the New York interbank market estimate its average daily turnover at over $50 billion during 1985. Other key money centers handle large volumes too — London, Hong Kong, Zurich, Tokyo, Singapore. These markets never sleep. Around the clock and around the world currency traders spend hours on the phone arranging foreign exchange deals between institutions located in opposite corners of the globe or just around the corner from each other.

VOLUME GROWTH 1984–1985
(number of contracts)

Deutsche Mark Futures Options vs.
Deutsche Mark Futures



Source: CME Statistics Dept.

We cannot fully describe here the forces that drive a particular exchange rate up and down. Briefly, they include each country's political and economic condition and, in particular, its interest rates relative to those in other countries. (For more details, read a clear, concise article on this subject entitled "Practical Tools for Trading Currency Futures" by Robert Boston. It appeared in the COMMODITY YEAR BOOK 1981, pages 20–25.)

At the heart of the foreign exchange market are a few specialized firms that broker many of the deals between buyers and sellers of foreign currency. The bids and offers these brokers take from and give to banks and multinational corporations create an invisible tickertape for participants in the FX marketplace. These are the rates at which the world is willing to buy and sell currencies at any point in time. Interbank transactions are for spot delivery (two business days hence), forward delivery (for instance, 3 to 6 months hence), or they are "swaps." To explain how such transactions take place let's look at a simple example.

A Simple Interbank Transaction

A bank in New York has a customer, a Mercedes dealer, who must pay its German manufacturer 3 million Deutsche marks, three months hence, for a shipment of cars it will be receiving. Today the dealer wants the bank to guarantee it a price for exchanging dollars for DM in three months. It is worried that the DM/US dollar rate will go up; that would mean paying more dollars for the Deutsche marks needed to cover the manufacturer's bill.

The bank asks its FX broker to get quotes for three month marks. The broker phones his inventory of bank DM traders and asks for bids and offers ("What do you quote for 3-month DM?"). In order to get unbiased quotes, interbank brokers do not say whether their client is buying or selling. Neither do they initially give the size of the transaction.

In a few minutes the broker finds the other side of the trade, a bank in Munich willing to exchange 3 million DM three months hence for, say, $1.35 million, a rate of $.45 per DM. The broker obtains the agreement of the two banks and the deal is done after they accept each other's names. This is to control risk. Banks have limited dealing lines with each other to avoid booking too many transactions with the same bank. Confirming telexes are exchanged. The New York bank can then guarantee an exchange rate to its customer, adjusted to include its fee for services.

In practice, banks will quote such outright forwards to customers and hedge them with "swaps." In the example, this would involve selling spot DM on the interbank market and buying it back in three months — a transaction very much like a cash/futures spread.

From Upstairs Down

Exchange rate quotes for the major currencies may change from minute to minute (or even more frequently) during some days and barely move during others. Whatever the level of volatility, pricing information immediately works its way from the bank trading rooms onto the floors of the exchanges where it affects prices for foreign exchange futures and options on futures.

How does this happen? The banks are major participants on the floors of the exchange, and through arbitrage (futures vs. forward) they keep the two markets synchronized. When trading gets hectic upstairs, it gets hectic downstairs too — in a matter of seconds.

After foreign exchange futures began trading in 1972, money center banks eventually began using futures to hedge their upstairs interbank transactions. For example, going back to our German bank/American bank three-month forward transaction, the American bank could sell DM futures to cover the $3 million exposure in case the value of the DM went down. More than likely, the bank would close out its short futures position before the contract expired or roll into the next contract.

Currency options followed currency futures. First, the interbank market began offering over-the-counter options, tailored to each customer. Then, the Philadelphia Stock Exchange began organized trading in options on cash currencies in December, 1982. Finally, in 1984 and 1985, the CME began trading options on FX futures. Interestingly, since option pricing can be complex and participants use more than one pricing model, many banks look to prices quoted on the Chicago Mercantile Exchange in checking interbank option prices.

Anatomy of an Option Contract

Each option contract has several components. To describe a currency option we need to know:

— whether it is a call or put;
— when it expires;
— what is its strike price;
— how much it costs (premium payment required).

Call vs. Put

All options are either calls or puts. A currency futures call grants the buyer the right to exercise the call at any point prior to its expiration; if he chooses to exercise, he will secure a long position in a futures contract at a rate (price) agreed upon up front (the strike price).

In return for granting this right, the seller (writer) of the call receives a premium payment from the buyer. Usually it amounts to a few percentage points of the value of the underlying futures contract.

A put grants the buyer the right to exercise the option at any point before expiration. In so doing, he obtains a short futures position — again at the strike price. In return for granting the put buyer this right, the put writer receives a premium payment.

As with FX futures prices, FX option premiums are quoted in American terms — cents per unit of foreign currency. This differs from the interbank market where all currencies but the British pound are quoted in European terms — units of foreign currency per US dollar.

Think of the premium as the option's price tag. The fluctuations of this price mirror those of the underlying futures contracts and cash. The buyer's decision to exercise his option will depend on these price movements and how they affect the value of his option.

An important difference between options and futures is that the call or put **buyer** cannot lose any more money than the amount he pays for the option premium. The **writer**, on the other hand, can lose the premium he receives, and more money if the buyer exercises.

Contract Months

The expirations for option contracts coincide with those of the underlying FX futures — March, June, September, December. However, the options expire six business days before the futures. This gives the buyer and the writer time to close out futures positions acquired if the option is exercised.

Another note about expiration: FX options traded on the Chicago Mercantile Exchange are **American** options. This means the buyer can exercise them at any time before expiration. Other FX options, including those traded on the Chicago Board Options Exchange, are **European** style; they can only be exercised on the expiration day.

Strike Prices

A foreign exchange futures contract is described by its delivery month and currency — the March DM, the September SF, and so on. A currency futures option is described by its expiration month, currency, strike price, and type — the March DM 45 call, the June BP 145 put. The strike price is the price at which the buyer will be able to acquire the underlying futures position if and when he exercises.

Within each expiration month the exchange lists at least five different strike prices. The middle one is closest to the previous day's closing price for the underlying futures. For instance, if on January 2 March DM futures close at \$.4510 (per DM), then the strike prices listed for the March DM options on January 3 will be .43, .44, .45, .46 and .47. The exchange adjusts the strike price boundaries as needed, adding new strike prices as the futures price moves. There are no daily price limits for these options.

Choosing Between Calls and Puts

In FX futures, buyers are bullish on a currency while sellers are bearish. With FX options, bulls and bears each have two distinct ways to act on their views.

The trader who expects the price of the underlying currency futures to rise can buy a call *or* write a put. Both transactions imply the same view, but carry different elements of risk and reward. The call buyer can lose no more than his premium payment. The put writer has no such guarantee. He may lose all of the premium he received and more, if the buyer exercises. On the other hand, for taking this risk, the put writer pockets the premium payment up front — an amount he may be able to keep.

The trader who is bearish on a currency can buy a put *or* write a call. Again, the buyer knows what his maximum loss could be (the premium he paid), while the writer does not.

Using Options to Take a View on FX Futures Prices

	CALL	PUT
BULLS	buy	write
BEARS	write	buy

Note:

Bullish traders feel the value of the underlying currency and its futures will increase in value relative to the US dollar. Bears feel the opposite.

Call and put buyers have limited downside risk and "unlimited" upside potential.

Call and put writers (sellers) have limited upside potential and "unlimited" downside risk.

What Can Happen to Those Bulls and Bears?

During the lifetime of an option transaction, one of three things can happen to option buyers and writers. First, the writer's side:

1) He can keep the premium payment he received if the buyer does not exercise his right to a long or short futures position. This may occur if the futures price never moves to the point where the option buyer will profit from exercising.

2) He can reverse his position — buy an option identical to the one he wrote. He might do this to cut his losses and to avoid exercise if the exchange rate moves against him. This means he must buy the option back at a higher price than he sold (wrote) it for. Call premiums increase as rates rise; put premiums increase as rates fall. If rates move in his favor, he can also reverse and take his profits before the contract expires.

3) Or, if he does not reverse his position and the buyer exercises, he may automatically be assigned: i) a short position in the underlying futures at the strike price if he wrote a call; or ii) a long position in the underlying futures if he wrote a put.

Note that when an option is exercised, the writer's position offsets the buyer's position in the futures market. The exchange clearing house randomly assigns exercise notices to writers. So if, for instance, there are three trades for the DM Mar 45 call and only one buyer exercises, any one of the three writers may be assigned the exercise notice.

Here's what can happen to the buyer:

1) He can hold onto his option and forfeit his entire premium payment. He might do this if the option never becomes profitable to exercise.

2) He can take his profits or cut his losses by reversing his position — selling an option identical to the one he bought.

3) He can exercise his option. In exercising he obtains: i) in the case of a call, a long position in the underlying futures at the strike price; or ii) in the case of the put, a short position in the underlying futures.

Profit and Loss Profiles at Exercise

The call buyer will profit from exercising (or reversing) his option when the underlying futures price rises above the strike price of the option by an amount greater than the premium he paid the call writer.

The put buyer will profit when the underlying futures price drops below the strike price by an amount greater than the premium he paid the put writer.

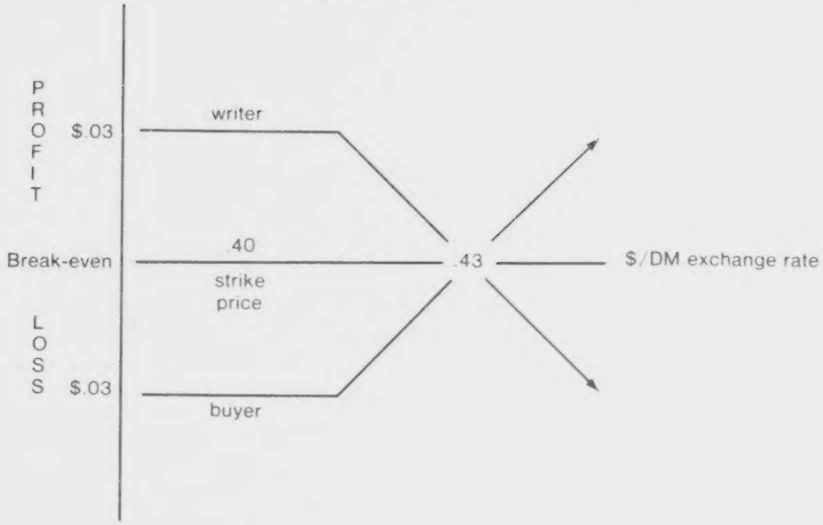
Let's look at the profit and loss profiles for a call and put transaction where neither the buyer or seller is hedged.

First, the call transaction. If in January we buy a

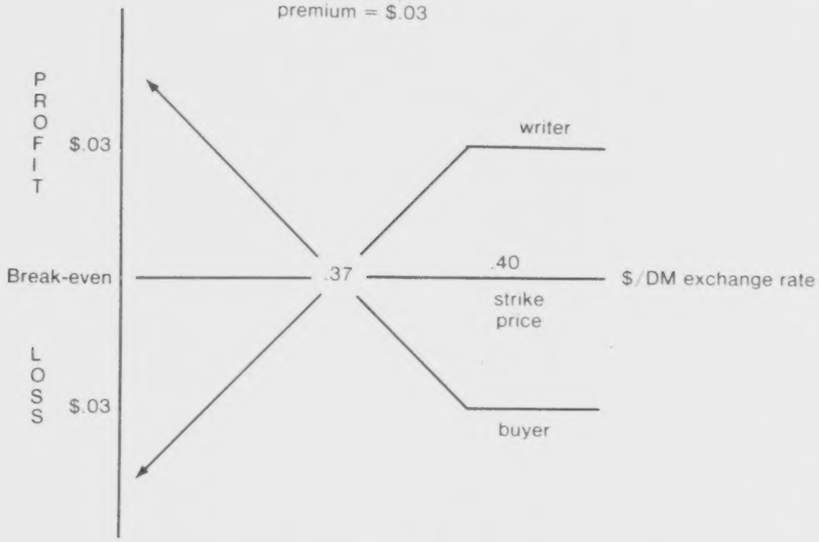
PROFIT/LOSS PROFILES FOR OPTION BUYERS AND SELLERS

(at expiration)

Sept DM 40 call
premium = $.03


P R O F I T
$.03
writer
Break-even
.40
strike price
.43
$/DM exchange rate
L O S S
$.03
buyer

Sept DM 40 put
premium = $.03


P R O F I T
$.03
writer
Break-even
.37
.40
strike price
$/DM exchange rate
L O S S
$.03
buyer

Sept DM 40 call for a premium of $.03 ($.03 per DM times 125,000, or $3,750), we will not profit by exercising our call until the Sept DM futures go above $.4300 (strike price + premium price). If Sept DM futures reach, for instance, $.4400, we will exercise our call and obtain a long position in DM futures at $.4000 while the market is at $.4400. Then, if we can reverse (sell) our futures at $.4400, our profit will be the $.04 minus the $.03 we paid for the call premium — a total profit of $.01 per DM, or $1,250.

What about the writer of our call? If we exercise, he is automatically given a short position in the futures at $.4000 per DM while the market is at $.4400. This means an automatic $.04 loss for him on the futures leg. The $.03 premium we paid him up front brings this loss down to $.01 per DM, or $1,250.

What about the profit and loss position for the put? If we buy a Sept DM 40 put for a premium of $.03, it will not be profitable to exercise until Sept DM futures drop below $.3700 (strike price minus premium price). Suppose they drop to $.3600. We can exercise our put and obtain a short futures position at

$.4000 per DM when the market is at $.3600. Our $.04 profit on the futures side is partially offset by the $.03 paid for the premium — a net profit of $.01 per DM, or $1,250 per contract.

The writer who sells us the put is given a long futures position at $.4000 when the market is at $.3600, an immediate $.04 loss on the futures partially offset by the $.03 premium he takes in up front. His net loss is $1,250.

Again, the writer can make no more money than the premium payment he receives from the buyer. And, if the buyer exercises his call or put, the writer will lose money on his futures position unless he is hedged.

By contrast, the buyer can lose no more than the premium he pays the writer. And, assuming his option increases in value, he may exercise it and be in a position to continue to profit on the futures side if the market keeps moving in the right direction.

Bear in mind that the buyer and seller can reverse their positions rather than going through exercise. In fact, more often than not, options are reversed rather than exercised.

Strike Prices and Option Prices

Suppose that it is January and the DM March futures are trading at $.4100.

We think the value of the DM is on the rise and want to act on our view with options. We can buy a call or write a put on DM futures. Let's stay with the long call. We must next choose from among these strike prices — .39, .40, .41, .42 and .43. Remember that the strike price is the price at which we will acquire a long position in the underlying futures contract if we exercise.

We decide to buy the March DM 41 call. The .41 strike price is the same as the underlying futures price and is referred to as the **at-the-money** strike price. In this example calls with strike prices above .41 are **out-of-the-money** and those below .41 are **in-the-money**.

On January 2, we buy the March DM 41 call for a premium of $.0050 per DM or $625.00 for the contract. A week later the March DM futures are trading at $.4300. Let's think about how much our .41 call might be worth.

We hold the right to purchase a DM March futures contract at $.4100 per DM which is now trading in the market for $.4300. Therefore, our option is worth at least $.02. In the jargon of the trade we say it has $.02 of **intrinsic value**. In-the-money options always have intrinsic value.

Relation of Strike Price to Underlying Futures Price

	CALL	PUT
In-the-money	strike < futures	strike > futures
At-the-money	strike = futures	strike = futures
Out-of-the-money	strike > futures	strike < futures

But, chances are our options will be worth more than $.02, say $.025. Since the option has two months remaining until expiration, it has time to become even more valuable. This possibility makes the option more expensive than its intrinsic value. The $.005 extra represents the option's **time premium**. Note that the $.005 premium we paid for the at-the-money option we bought (the Mar DM 41 call) was all time premium; it had no intrinsic value.

Time premium is the amount the market adds to the price of an option over and above its *intrinsic value (strike price minus underlying price)*. The writer of the option requires this extra money to make it worthwhile for him to write the option. It is his cushion in case the buyer exercises his option before expiration.

As the DM futures move up and down, so do the premiums for DM calls. On the other hand, a *put's* value will vary inversely with the movement of the futures. Recall that the put buyer expects the currency futures value to drop. Therefore, with the underlying March DM futures at $.4100, the in-the-money puts are the .42 and .43 strike prices. These options will have intrinsic value. The DM 42 put already has one point of intrinsic value because it grants the holder the right to obtain a short DM futures position at $.4200 when the market is at $.4100. The at-the-money put is the .41, as it is for the call. The out-of-the-money puts are the .39 and .40 strike prices.

How Much Premium?

The following factors will influence on option's cost or premium:

1. *The currency's volatility.* Option premiums rise when the underlying currencies become more volatile. This makes sense. Options on currencies whose prices zigzag frequently and sharply, have greater chances of becoming valuable enough to exercise. The writer demands extra premium income because he bears more risk.

Think of it this way; If someone wrecks his car repeatedly, his insurance company will demand a higher premium. The driver has a volatile accident record and chances are high that the insurer will have to cover damages.

2. *The strike price.* The closer the option is to the underlying futures price, the higher its time premium. Since the strike price is already close to the futures price, the option can easily pick up value. For this reason, time premiums for at-the-money options are highest.

Time premiums for deep in- and out-of-the-money options are the lowest. The strike price is far enough away from the underlying price that it has a lower chance of being exercised.

In-the-money options are the most expensive since they have intrinsic value included in the price.

3. *Time to expiration.* The more time remaining, the more expensive the option since it has more time to increase in value. But an option is a wasting asset. As it approaches expiration, it starts to lose time premium; too little time eventually remains for the option to reach the point where it is profitable to exercise or reverse. However, the more volatile the currency, the longer its options hold onto time premium.

Pricing an option isn't simple. Premium prices change as currencies become more or less volatile and predicting such movements takes skill and a little luck. A number of option pricing models help market participants evaluate option premiums, the most famous being the Black-Scholes pricing formula. Traders upstairs and down have access to such models through computer programs.

A Quick Review

— An option contract is either a put or call. Traders who are bullish on the underlying currency or currency futures can act on their view outright by either buying a call or writing a put. Bears can write a call or buy a put on the underlying futures.

— The FX option trading cycle coincides with that of the underlying futures contracts, except that options expire six days before the futures.

— Puts and calls are traded according to the month they expire and their strike price. The strike price is the price at which the call buyer will acquire a long position in the futures if he exercises, and the put buyer will acquire a short position if he exercises. The call and put writers will simultaneously be assigned opposite positions in the futures.

— Premium values for puts and calls depend on the option's intrinsic value and time premium. Time premium values differ according to the currency's volatility, the time to maturity of the option and whether it is in-, at-, or out-of-the-money. Only in-the-money options carry intrinsic value.

FX Option Strategies

Traders can use options to take positions that range from outright speculation to full hedges. But, because options are so versatile, the trader has many ways to position his trade in between the two extremes.

First, let's look at a simple unhedged long call position. As the buyer, the most we can lose is the premium payment.

The Outright Long Call

Suppose it is March 1 and June DM futures are at $.4200. We think the futures price is going up to, say, $.4500 between now and the beginning of June. Here are the (hypothetical) June DM option prices on March 1 with the futures at $.4200:

	DM June call strike price	Cents per DM (125,000=contract size)		
		call premium	intrinsic value*	time value**
in-the-money	.40	2.5	2.0	.5
in-the-money	.41	1.6	1.0	.6
at-the-money	.42	.8	0	.8
out-of-the-money	.43	.2	0	.2
out-of-the-money	.44	.1	0	.1

* strike price minus futures price
** premium minus intrinsic value

Using the Out-of-the-Money

The strike price we choose should depend on how strongly we feel the futures price will rise during the option's lifespan and how much money we want to risk. If we are confident it will rise to, say, $.4400, we may choose an out-of-the-money strike price such as the .44. Out-of-the-money options give buyers more leverage because they are cheap. The DM 44 call will only cost $125 ($.001 per DM).

Should the June futures price jump from $.4200 to $.4400 within the next month, the .44 strike price will be at-the-money and worth, say, $.008 or $1,000 per call. We can then reverse our long position and realize an 800% profit.

However, if the futures only reach $.4300, our .44 strike price will not pick up an extra full point since it will still be out-of-the-money. A dollar move in the underlying futures does not correspond to a dollar move in the out-of-the-money option. To describe this relationship, we say that the out-of-the-money option has a **delta** of less than one. An option's delta is a measure of how much it moves in relation to a one point move in the underlying futures. The deeper out-of-the-money an option, the smaller the delta; the deeper in-the-money, the higher the delta. The maximum delta is one.

Using the At-the-Money

If we're not sure the DM futures will rise and still want a chance to make money, we might want to buy the at-the-money call, the .42. This time our position will not be as leveraged, because we must pay $.008 per DM or $1,000 in premium. But, if the DM futures move up only 1 cent, to $.4300, the .42 call will pick up some intrinsic value and some time value; it might be worth about $.015 per DM, or $1,875 — a gain of 87.5%. On the other hand, if the futures price drops we will have a better chance of recapturing some of our premium by reversing our call than would be the case with the out-of-the-money strike price.

Using the In-the-Money

If we choose an in-the-money option we get the least leverage because we must pay for its intrinsic value. Nevertheless, if the futures go up only a small amount, this option will probably rise by about the same amount. In-the-money options have a delta close to one and are the best choice for capturing a moderate rise in the futures.

In summary, to get the most leverage we may decide on an out-of-the-money option — particularly if we feel very sure that the price is going up. If we're not so certain that it will go up and want to be able to recoup some of our investment in case it doesn't, we may choose an at-the-money. And finally, if we think futures prices will move up by a small amount and we can cover the high premium payment, we may buy an in-the-money call.

Now, for the outright long put, reverse the above scenarios. The in-the-money options are those with strike prices above the underlying futures price and the out-of-the-money are the ones below.

Such outright positioning is risky. The option buyer can lose all or most of the premium. Knowing that small losses add up to big ones, most experienced option traders hedge some, if not all, of this risk. And option writers, even more than buyers, must hedge. Otherwise they might acquire unwanted futures positions if the market takes a sharp turn.

A host of option strategies can be tailored to insure against big losses. Brief descriptions of some of the more common ones follow.

Covered Call Writing

In this strategy the trader writes a call option to hedge a long futures position against a decline. If the market drops, the call premium he keeps may offset all or some of the loss on the futures position. On the other hand, a market rally will mean a profit on the futures leg. Therefore, if he wishes to stay in the futures market he will want to reverse his short call before it is exercised.

Remember that the call writer receives a *short* futures position when his option is exercised. Since the covered call writer already holds a long position, it will be reversed to satisfy his obligation to the buyer upon exercise.

Depending on his view of the market and overall strategy, the covered call writer will choose options that are in-, out-, or at-the-money.

Hedging a Short Currency Position

Here the trader buys the call to protect a short FX futures position against an increase in the market. Should this happen, the trader can exercise his call and obtain a long position at the strike price which will be used to net out his short futures. Rather than exercising, the trader can also reverse his call and use the profits to help offset losses on the short futures (to cover margin calls, for instance). In this strategy, at-the-money calls provide the most protection, but are also expensive options to use.

Writing Out-of-the-Money Combinations—The Strangle

The trader who thinks a currency's exchange rate will be sluggish may act on this view by writing a put and a call — both out-of-the-money — on the same underlying futures. This means he receives premium income on both sides of the transaction. If his view is correct, he may be able to keep all or most of it.

Suppose with March DM futures at $.4300 he writes a .44 call and a .42 put, taking in a premium of $.0125 on each side. As long as the DM futures does not move above $.4425 (.4300 + .0125) or below $.4175 (.4300 − .0125), neither option is likely to be exercised and the writer can keep both premium payments. If the futures move sharply up or down, however, the trader may incur losses, particularly if one of the options he wrote is exercised. For this reason, he must track the position carefully and be prepared to reverse quickly.

The trader can adjust his strategy to reflect a bullish or bearish view or a more cautious stance by choosing strike prices farther in- or out-of-the-money. For instance, he might write a .45 call and a .41 put. This would be less risky since the futures could fluctuate within a wider range before either option would become valuable enough to exercise. However, the .45 call and .41 put are both deep out-of-the-money options and therefore inexpensive; the writer won't take in as much premium income on this trade.

Straddle Buying

Whereas the combination or strangle writer will profit when currency futures remain stable, the opposite holds true for the straddle buyer. His highest profits come when the underlying futures move sharply up and down (or down and up) during the time the position is on. To capture these movements, the straddle buyer purchases a put and call on the same underlying futures contract at the same strike price. He will choose expiration dates and strike prices based on his opinion of when and how much the future prices will move.

If the trader is correct, the futures price rises, causing the call to increase in value. When the trader feels it has peaked, he reverses it and takes his profit. Then, if he is still correct on his view, the price takes a nose dive and he closes out the put at a profit too. The order can be reversed with the same results — the put gaining value before the call.

One drawback for the straddle buyer is the money he must pay for premiums on both sides of the transaction. If the futures do not move as he expects, he may want to close out one or both positions to recoup some of his premium investment. The sooner he can do this the better, since both options will become less valuable as they approach expiration and begin to lose time premium.

Again, this example simplifies a strategy that can be complicated when different strike prices and expiration months are used to reflect a trader's bullish or bearish view and his appetite for risk.

Bull and Bear Spreads

The trader who puts on a bull spread expects an increase in the underlying FX futures. Using the same expiration dates, he buys an in-the-money call and sells an out-of-the-money call. The out-of-the-money call he writes protects him if he's wrong and the futures drop in price.

Since the lower strike price call is in-the-money, it should have a delta close to one. Consequently, it will rise on an almost one-for-one basis with the underlying futures. The call with the higher strike price, being out-of-the-money, has a delta less than one. Therefore, its price will move less than the underlying futures. For this reason, if the futures price rises, the trader will pick up more profit on the in-the-money call he bought than he will lose on the out-of-the-money call he wrote.

The bear spread is a hedged strategy for the trader who thinks the underlying FX futures are ready to drop. The position is put on at a credit because it involves writing an in-the-money-call and buying an out-of-the-money call, both with the same expiration. The money taken in on the short call is greater than the money spent for the long one. If the price drops as expected, the in-the-money call (the one with the lower strike price) expires worthless and the trader keeps the premium. The out-of-the-money call will also expire worthless and he will lose the premium he paid for it. This amount should be relatively small, however, since the call is out-of-the-money.

Reversals and Conversions

Reversals and conversions are arbitrage rather than hedging transactions. They keep put, call and futures prices in line. In a nutshell, buying the call and shorting the put at the same strike price is a transaction which is equivalent to a long futures position. If the futures price rises, the call increases in value and there is no loss on the put. If the futures price falls, the put loses money and the call expires worthless.

The opposite transaction, buying a put and selling a call at the same strike price, is equal to a short futures position.

For this reason, traders can compare the prices of calls and puts at the same strike prices to prices of the underlying futures and determine whether the prices are in line. If they are not, options and futures can be combined in reversal or conversion strategies to lock in arbitrage profits. These arbitrage opportunities come and go quickly since many traders are on the alert for them.

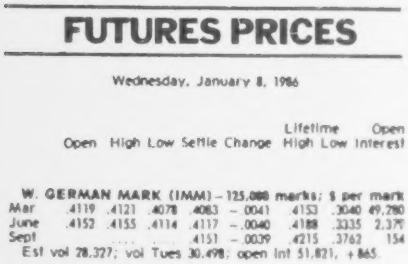
Conclusion

Currency option trading involves many of the same types of strategies found in the futures pit as well as others that are unique. Creative traders who like having many ways to skin a cat will welcome the versatility options offer.

Admittedly, we have just scratched the surface of the subject in these few pages. You can dig deeper by reading the material on FX options distributed by the Chicago Mercantile Exchange.

With a shrinking world and an uncertain dollar, more and more investors and businesses are going to be looking to FX options for protection and profits. Getting familiar with them now can only put you ahead of the pack.

COMPARING QUOTES . . . FX FUTURES vs. FX FUTURES OPTIONS



FUTURES PRICES

Wednesday, January 8, 1986

	Open	High	Low	Settle	Change	Lifetime High	Lifetime Low	Open Interest
W. GERMAN MARK (IMM) – 125,000 marks; $ per mark								
Mar	.4119	.4121	.4078	.4083	– .0041	.4153	.3040	49,280
June	.4152	.4155	.4114	.4117	– .0040	.4188	.3335	2,379
Sept	....	....	....	.4151	– .0039	.4215	.3762	154

Est vol 28,327; vol Tues 30,498; open int 51,821, +865.

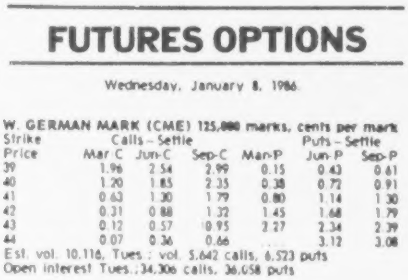
Note:

March futures settled at $4.083 and June futures at $.4117. Therefore, for the March and June calls:

	strike price
in-the-money	.39, .40
at-the-money	.41
out-of-the-money	.42, .43, .44

The September futures settled at $.4151. Therefore for September calls:

in-the-money	.39, .40, .41
at-the-money	.42
out-of-the-money	.43, .44



FUTURES OPTIONS

Wednesday, January 8, 1986

W. GERMAN MARK (CME) 125,000 marks, cents per mark

Strike Price	Calls – Settle Mar C	Jun-C	Sep-C	Mar-P	Puts – Settle Jun-P	Sep-P
39	1.96	2.54	2.99	0.15	0.43	0.61
40	1.20	1.85	2.35	0.38	0.72	0.91
41	0.63	1.30	1.79	0.80	1.14	1.30
42	0.31	0.88	1.32	1.45	1.68	1.79
43	0.12	0.57	0.95	2.27	2.34	2.39
44	0.07	0.36	0.66	....	3.12	3.08

Est. vol. 10,116, Tues.; vol. 5,642 calls, 6,523 puts
Open interest Tues.;34,306 calls, 36,058 puts

For puts, the March and June strike prices are as follows:

in-the-money	.42, .43, .44
at-the-money	.41
out-of-the-money	.39, .40

And for the September put:

in-the-money	.43, .44
at-the-money	.42
out-of-the-money	.39, .40, .41

Source: THE WALL STREET JOURNAL, January 9, 1986

THE IMPACT OF THE 1985 FARM BILL ON MAJOR AGRICULTURAL COMMODITIES

BY SUSAN BUCHANAN

A Change in the Direction of U.S. Farm Policy

The Food Security Act of 1985 makes some changes in U.S. agricultural programs that should have wide ranging effects. The policy effects are expected to occur in nearly every area of the U.S. farm economy, including crop production, agricultural market prices, farm exports, the level of surplus commodities, and farm income. The bill addresses the current U.S. farm crisis and a number of problems that have plagued the agricultural sector in recent years.

The new farm legislation is considerably different from the Agriculture and Food Act of 1981. The current bill spans a longer period, having been signed into law on December 23, 1985, and extending to September 30, 1990; the old bill covered the four crop years from 1982–1985. In the new law, the discretionary authority of the Agriculture Secretary to determine aspects of annual crop programs is substantially widened. The Secretary can use discretion in setting target prices, loan rates, loan repayment rates, cash versus in-kind deficiency payments, acreage reductions, cross compliance, and other details.

The 1981 bill set minimum target prices which increased each year, while the 1985 Act leaves 1986 (and in some cases 1987) target prices unchanged, but in the following years gradually reduces them. Loan rates in the old legislation could be reduced slightly by the Agriculture Secretary's discretionary authority, but could not fall below set minimum levels. In the new bill, loan rates are reduced in 1986, and can be cut in 1987–1990. Additionally, base loan rates in the new bill can be lowered significantly by up to 20 percent under the Findley Amendment. The new bill is considered more market oriented than the old legislation because it brings loan rates more closely in line with recent market prices and aims at lowering target prices in the 1986–1990 period.

The new bill stipulates acreage reduction based on expectations of specified stocks levels and allows further cuts at the Secretary's discretion. In the earlier law, acreage reduction depended on the Secretary's judgment that supplies were excessive. Furthermore, there is a completely new program in the farm bill, setting up an Acreage Conservation Reserve, which takes land out of production and aims at slowing erosion.

The 1985 bill provides some new terminology for programs. A "marketing loan" is one that can be repaid at a level below the rate that it was made. A "loan deficiency payment," different from the standard "deficiency payment," has several meanings, but is most commonly the payment made on the difference between the loan rate and the loan repayment rate. An "inventory reduction program" lets farmers who cut back their acreage by half the required reduction (and go without loans and deficiency payments) receive in-kind payments.

The new legislation attempts to correct certain policies that have exacerbated the farm sector's problems. Key factors contributing to the farm crisis have been large crops, high U.S. agricultural prices compared with world prices, dwindling exports, dampened growth in foreign import demand, and record stocks of agricultural products. Average farm incomes have declined, while producers have faced rising costs and high interest rates; the result has been a dramatic increase in farm debt and farm foreclosures. In the new bill, loan rates, roundly criticized in the past for supporting U.S. prices above world levels, have been substantially cut. Target prices have been left the same in 1986 to help farmers maintain their incomes. Acreage reductions have been increased for some crops to help lower output of surplus products. In-kind deficiency and diversion payments have been authorized to release CCC surplus stocks and reduce government storage costs. Additional funds have been authorized for export programs to expand shipments of farm products to foreign customers.

The new farm bill is expected to require increased federal spending for agricultural programs. Since target prices are about the same and loan rates are lower, the difference between the two has widened and this implies larger subsidies to farmers. Furthermore, in 1986 record numbers of farmers are expected to sign up for the program. Yet, at present (early March 1986), the Gramm-Rudman Act for a balanced budget is in effect (the Act's legality is currently being decided by the Supreme Court). Because of spending reductions required under this law, USDA is planning to make 4.3-percent cuts in deficiency and diversion payments to farmers for 1986 crops.

Main Provisions of the 1985 Farm Bill

Loan Rates and Target Prices

Producers signing up for the farm program can use crops as collateral for 9-month non-recourse loans. The CCC loan program covers wheat, corn, oats, barley, sorghum, soybeans, cotton, and rice. With the loan, the farmer borrows an amount equal to the volume of the commodity times the loan rate. The interest rate charged the farmer is determined by the Treasury Department. After 9 months, the producer either repays the loan or forfeits the commodity to the CCC. Or, at that time, wheat and corn producers can elect to place grain in the Farmer Owned Reserve (FOR). (In the FOR, the farmer is given a 3-year loan on which he pays interest for only one year. When prices reach a specified level, the trigger price, the farmer may redeem his loan or begin paying interest.) The loan program dampens the amount of grain entering the market at harvest and helps the farmer's cash position.

The CCC generally accumulates large stocks in the loan during years of low prices, and when accumulation is large, the loan rate acts as an approximate floor price for the market. In the new farm bill, loan rates have been reduced from previous years in order to pressure U.S. market prices to levels more competitive in the world market.

Target prices are used as a mechanism for protecting farmers' incomes against low prices. The difference between the average market price (in the first 5 months of the year) and the target price determines the deficiency payment to producers. Since deficiency payments based on target prices are transfer payments from the government to producers, target prices do not have much impact on market prices (other than that they encourage participation in the farm program and influence planting decisions). In 1986, target prices were frozen at 1985 levels to avoid heightening the economic problems of the farm community. However, target prices for most crops will be reduced 2–5 percent annually in 1987–1990.

The target price for 1986 crop wheat is $4.38, the same as the 1985 level. The base loan rate in 1986 is $3.00, which has been reduced by 20 percent with the Findley Amendment[1] to an effective loan rate of $2.40 (compared with the 1985 base loan rate of $3.55, reduced to $3.30). The effective wheat loan rate in 1986 is 27 percent lower than the 1985 rate. The target price will remain the same in 1987, but thereafter will likely be reduced each year. Beginning in 1987, base loan rates can be lowered by up to 5 percent from the previous year. Every year, the new rate may be reduced by an additional 20 percent.

Table 1
Farm Program Details for Wheat, Crop Year 1986–1990

	1986	1987	1988	1989	1990
Target price	$4.38	$4.38	$4.29[1]	$4.16[1]	$4.00[1]
Base loan rate	$3.00	75–85% of average market price[2]			
Effective loan rate	$2.40	80–100% of base loan rate			
Acreage reduction program	25%	20–27.5%	20–30%	20–30%	20–30%

[1] Agriculture Secretary can reduce target price from the year before by up to 2% in 1988, 3% in 1989, and 5% in 1990, subject to target price floor of $4.00.

[2] Average price of 5 preceding years, excluding high and low years; however loan rate may not be reduced by more than 5% of the previous loan rate.

The 1986 target price for corn is set at $3.03, the 1985 level. The base loan rate in 1986 is $2.40, which was reduced another 20 percent with the Findley Amendment to $1.92. This compares with a 1985 base loan rate of $2.55, which was not reduced. In 1987, the corn target price will remain the same, and will likely be lowered in the three following years. Base loan rates for 1987–1990 may be reduced by up to 5 percent of the previous year's rate. A maximum 20% reduction with the Findley Amendment may be made on the base loan rate each year. (Table 2.)

Table 2
Farm Program Details for Corn, Crop Year 1986–1990

	1986	1987	1988	1989	1990
Target price	$3.03	$3.03	$2.97[1]	$2.87[1]	$2.75[1]
Base loan rate	$2.40	75–85% of average market price[2]			
Effective loan rate	$1.92	80–100% of base loan rate			
Acreage reduction program	20%	12.5–20%	12.5–20%	12.5–20%	12.5–20%

[1] Agriculture Secretary can reduce target price from the year before by up to 2% in 1988, 3% in 1989, and 5% in 1990, subject to target price floor of $4.00.

[2] Average price of 5 preceding years, excluding high and low years; however loan rate may not be reduced by more than 5% of the previous loan rate.

There is no target price for soybeans. The loan rate for soybeans in 1986 and 1987 is set at $5.02 per bushel, the same as in 1985, but can be reduced by up to 5 percent to make soybeans globally competitive. The 1986 rate, which will not be announced before August 1, 1986, is expected to be lowered by 5 percent to $4.77 by the Agriculture Secretary. In 1988–1990, the loan rate is to be set at 75 percent of the average market price in the preceding 5 years, excluding high and low years. (Table 3.)

The 1986 crop target price for cotton is 81 cents per pound, the same as in 1985, while the loan rate was lowered from 57.3 cents in 1985 to 55 cents in 1986. When USDA does not consider U.S. cotton competitive in the world market, the loan repayment level can be lowered under either of two plans. Under "plan A," the loan repayment level is lowered to 80 percent of the loan rate. With "plan B," the loan repayment level is lowered to near the world price. During CY 1987-CY 1990, if the world price is less than 80 percent of the loan rate, the repayment rate will be set between the world price and 80 percent of the loan rate. (Under both plans A and B, PIK certificates will be issued to first handlers of cotton to make U.S. cotton competitive in the world market.) In 1986, plan A was implemented and the repayment rate was set at 80 percent of the loan rate or 44 cents per pound. (Table 4.)

Deficiency Payments

Deficiency payments are made to producers on the difference between the target price and the national average price for the first 5 months of the crop

Table 3
Farm Program Details for Soybeans, Crop Year 1986–1990

	1986	1987	1988	1989	1990
Base loan rate	$5.02	$5.02	75% of average market price[1]		
Effective loan rate	$4.77[2]	95–100% of base loan rate			
Acreage reduction program	—	—	—	—	—

[1] Average price of 5 preceding years, excluding high and low years; however loan rate may not be reduced by more than 5% of the previous loan rate with a floor of $4.50/bu.

[2] The 1986 rate, to be announced no earlier than August 1, 1986, is expected to be reduced 5% to $4.77.

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[1] The Findley Amendment to the 1985 Food Security Act authorizes the Agriculture Secretary to lower loan rates if he deems reductions necessary to help keep U.S. prices competitive in the world market. Loan rates can be lowered by up to 20% under the amendment. In the case of wheat and corn in 1986, the use of the amendment was not discretionary, but was mandated by law.

Table 4

Farm Program Details for Cotton, Crop Year 1986–1990

	1986	1987	1988	1989	1990
Target price	\$0.81	\$0.79[1]	\$0.77[1]	\$0.75[1]	\$0.73[1]
Base loan rate	\$0.55	90% of an adjusted Northern Europe price[2]			
Acreage reduction program	25%	25%[3]	25%[3]	25%[3]	25%[3]

[1] Agriculture Secretary can reduce target price from the year before by up to 2% in 1987, 3% in 1988, 3% in 1989, and 2% in 1990.

[2] 90% of the adjusted average price of the 5 lowest priced growths of Middling $1\frac{3}{32}$ inch cotton CIF Northern Europe for July 1–mid October of the loan rate year.

[3] Maximum reduction.

year. However, payments may not exceed the difference between the target price and the loan rate. Deficiency payments are made on wheat, corn, barley, oats, sorghum, upland cotton, and rice. Under the farm bill, 5 percent of the total deficiency payment may be made in-kind, however reductions in the base loan rate (for instance by Findley Amendment cuts) that result in increased deficiency payments are not subject to the 5-percent limit. Therefore, in 1986, since base loan rates were reduced for wheat, corn, and other feedgrains by 20 percent, the Agriculture Secretary authorized that 10 percent of total deficiency payments for these grains would be made in-kind. In 1986 only, USDA is required to pay part of the projected deficiency payment in advance. The Agriculture Secretary authorized in late January that 40 percent of the producer's projected deficiency payment for wheat and corn could be paid in advance beginning May 1, 1986. Of this, 25 percent could be paid in-kind. There are no deficiency payments for soybeans. In mid-February, USDA announced that producers of upland cotton in 1986 would be eligible for a cash advance deficiency payment of 7.8 cents per pound or about 30 percent of the projected total deficiency payment.

For in-kind deficiency payments, producers will be given "generic certificates" which they are to use for crops that they have in the 9-month loan or Farmer Owned Reserve. If they do not have any or sufficient commodities under loan or reserve, they can sell their certificates to other farmers or to commercial firms.

Total deficiency and other payments under the farm program are limited to \$50,000 per producer, as in the previous farm bill. However, an increase in deficiency payments resulting from reductions in the basic loan rate is exempt from the limitation. Furthermore, any gains that farmers make by repaying their 9-month loans at below the initial loan rate (as in the case of cotton) are exempt from the rule.

Cotton Marketing Certificates

The cotton program has some unique elements (favorable to producers and merchants) which are not provided in the grain programs. When the world price of cotton is below the loan repayment rate, USDA will issue negotiable marketing certificates to first handlers of cotton. The certificates will be valued at the difference between the loan repayment rate and the world price of cotton (adjusted Northern European price). These documents will be redeemable for stocks of upland cotton. In mid-February 1986, USDA announced that all owners of free supplies of cotton (including growers, mills, and merchants) on August 1, 1986 would be eligible for "inventory protection payments" in the form of marketing certificates. These payments will be the difference between the 1985 loan rate of 57.3 cents per pound and the world price on August 1.

Acreage Bases and Acreage Reduction

The producer's base acreage, used to determine farm program compliance, is the average planted acreage (and "considered planted" acreage under previous program enrollment) in the preceding 5 years, but not exceeding the average area planted in the most recent 2 years.

If the year's wheat carryout is likely to exceed one billion bushels, a wheat acreage reduction program is mandatory under the farm bill. In 1986, the bill sets the reduction at 15 percent plus a 2.5 percent payment-in-kind diversion and an additional 7.5 percent cutback at the discretion of the Agriculture Secretary. The Secretary chose to use the additional 7.5 percent cutback, therefore the 1986 wheat acreage reduction is 25 percent including a 2.5 percent PIK diversion. However, in 1986, farmers who reduced winter wheat acreage by 35 percent before the announcement of farm program details can receive a diversion payment on 10 percent of their base at a payment rate of \$2.00 per bushel.

For corn, if the year's carryout is expected to surpass 2 billion bushels, an acreage reduction must be applied. In 1986, this is set at 15 percent, including a 2.5 percent PIK diversion, and another 5 percent at the Secretary's discretion. Since the additional 5 percent was opted for by USDA, the average reduction in 1986 is 20 percent, including a 2.5 percent PIK diversion. There is no acreage reduction requirement for soybeans.

In years of large supplies, cotton-acreage reductions of up to 25 percent may be applied in order to achieve a 4-million-bale carryover. In 1986, USDA chose to apply the 25 percent reduction.

Under an "inventory reduction" provision in the farm bill, a producer planting at least 50 percent of his base acreage to wheat, feedgrains, or cotton can receive deficiency payments on 92 percent of permitted acreage (if the underplanted acreage is planted to nonprogram crops, such as sunflowers, or used for conservation).

In 1986, producers have from May 1 to September 30 to request their in-kind diversion payments. USDA begins making 1986-crop diversion payments on May 1, 1986. USDA set the 1986 land diversion payment rates at \$1.10 per bushel for wheat, \$0.73 for corn, \$0.57 for barley, \$0.65 for sorghum, and \$0.36 for oats.

Cross-compliance Provision

Cross-compliance is a rule relating to allowable planted acreage for a farmer participating in a crop program. When a producer has planted a program crop, and acreage reduction is in effect, planted acreage for any other program crop cannot exceed the crop area base for the other crop on that particular farm. For example, a corn producer participating in the corn program (when there is a corn acreage reduction) cannot plant more wheat than the farm's wheat acreage base. This rule is discretionary and USDA decided not to require cross-compliance in the 1986 crop program.

Conservation Reserve

Under a new program, producers can enter erodible land in a government conservation reserve and receive cash or in-kind rental payments. About 104 million acres meet the specifications of the program—of cropland that falls into USDA Soil Conservation classes 6, 7, and 8 (and any land in classes 2–5 that is eroding at twice the rate at which soil forms). USDA expects to place about 5 million acres in the reserve in 1986 and about 45 million during the 5 years covered by the farm bill. Growers will sign a contract to keep land in the reserve for 10 years and will be expected to plant grass, trees, or certain plants on the land. USDA will pay half the cost of planting for conservation. The government will allow a maximum 25 percent of the land in any one county in the reserve so as to minimize the economic impact of lost crop output in an area. Reserve acreage will not include set-aside or diverted acreage, but must be outside that used for the price support program.

Export Programs

In addition to lowering loan rates to make U.S. prices competitive in world markets, the new farm legislation includes various programs to stimulate U.S. farm exports. The farm bill mandates that USDA spend $1 to $1.5 billion (original bill mandated $2 billion, but this was changed by Congress) through the Export Bonus Program (BICEP)[2] during FY 1986-FY 1988 to ship farm commodities to selected countries to counter other exporters' subsidies and what are considered unfair trade practices. Of this amount, a minimum 15 percent must be used to export meat, poultry, and meat products. BICEP provides CCC agricultural products at subsidized prices to countries usually chosen because they are also markets for subsidized EEC farm products. Through the program, participating U.S. exporters receive PIK bonuses from CCC stocks.

USDA is also mandated to provide at least $5 billion in short-term export credit guarantees to buyers of U.S. farm commodities from FY 1986-FY 1990. Intermediate-term export credit guarantees (of 3 to 10 years) of $500 million per year are mandated for FY 1986–FY 1988, with up to $1 billion in both FY 1989 and FY 1990.

Funding for the PL 480 program (Food for Peace), which provides credit financing on food exports to developing countries, is re-authorized to 1990. A barter trade program has been initiated to acquire commodities for strategic stockpiles in exchange for U.S. farm commodities.

The Impact of the Farm Bill on Supply, Demand, and Prices

Wheat and Corn

Market prices for new crop wheat in 1986/87 are likely to be significantly lower than in 1985/86 as policymakers and USDA intend to reduce U.S. prices to internationally competitive levels. The huge 27-percent cut in the 1986 wheat loan rate brings it to $2.40, the lowest since 1978 when it was $2.35. Generally, the loan rate acts as a strong price floor. And, in years of sizable stocks, prices tend to approach this floor. In 1985/86, U.S. wheat carryover stocks are expected to reach a record 1.89 billion bushels (and world stocks are forecast by USDA at a record 129 million tonnes). Thus, there is considerable downside potential for prices. Wheat target prices are not likely to have much impact on market prices, although they will encourage very heavy participation in the government program. A substantial number of wheat farmers are expected to sign up for the 1986 program since otherwise they risk receiving low prices without subsidies.

Loan entries of 1985/86 crop wheat were very high, reducing free supplies and supporting prices. However, for 1986/87 crop wheat, at least 10 percent of total deficiency payments will probably be paid in-kind. Furthermore, farmers are eligible to receive 25 percent of their advance deficiency payments in-kind beginning in March 1986. When wheat stocks are released from the loan program through PIK payments, free supplies will increase and prices could theoretically fall below the loan rate.

The 1986/87 wheat acreage reduction of 25 percent is actually lower than the previous year's total 30 percent acreage cutback. However, with more farmers participating in the farm program, more will be conforming with reduction requirements. Furthermore, the "inventory reduction" program, allowing deficiency payments on 92 percent of permitted acreage (when as little as 50 percent is planted to wheat, feedgrains, or cotton), may cut the acreage normally devoted to wheat and other program crops and boost nonprogram crops (such as sunflowers, edible beans, and potatoes).

In 1986, there may be increasing demand for new crop wheat as a domestic feedgrain, especially since its price could fall below old crop corn during the summer (until the corn year ends in September). In the summer, the 1985-crop corn loan rate of $2.55 will be in effect, while the 1986-crop loan rate of $2.40 will be the applicable one for wheat.

The new farm bill is likely to help boost wheat exports somewhat in the nearterm and more substantially in the longterm. U.S. wheat exports, which accounted for about 50 percent of world wheat trade in the late 1970s to early 1980s, recently have accounted for only about 33 percent. In 1985/86, U.S. wheat exports are lagging year-before levels by about 40 percent. As U.S. market prices of wheat fall with the drop in the loan rate, foreign competitors are expected to match the price declines. Consequently, world prices could fall to levels that have not prevailed in years. Because of the probability of widespread price cutting and intense competition, the U.S. is not likely to begin regaining its market share for some time. However, eventually low world prices could force out countries producing wheat on the margin. If so, the U.S. could recoup some lost business and the pace of export sales would pick up. Yet, because world import demand for wheat has been shrinking in recent years, U.S. wheat exports may not reach the peak levels of 1980–1982. The Export Bonus Program appears to be a generally favorable policy for expanding wheat exports, except that it is accountable for the drastic decline in wheat sales to the USSR in 1985/86. The PL 480 program continues to bolster the level of wheat exports while providing concessional financing on food to developing countries. One expected impact of the farm bill on world trade is that wheat importers will benefit from lower global prices.

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[2] BICEP, which began in mid-1985, helped boost wheat and flour exports from very low levels in 1985. However, the program is considered to have some weaknesses. Competitors have complained that the program unfairly lowers world wheat prices. Furthermore, the USSR bought much less U.S. wheat in the 1985/86 marketing season because the country was excluded from BICEP. Some analysts believe that the program does little to counter EEC subsidies, but by pressuring world prices encourages further subsidized sales by competitors.

The lowering of the 1986-crop corn loan rate to $1.92 and the release of CCC stocks through PIK payments are factors that will pressure corn prices. The loan rate has not been near $1.92 since crop years 1977 and 1978 when the level was $2.00. In 1986, the size of the upcoming crop will be an important element in determining corn prices; the 1984/85 and 1985/86 crops were both records. Weather in the cornbelt will be critical, as usual, for prices. The corn acreage reduction, raising the required amount of land idled from 10 percent in 1985/86 to 17.5 percent in 1986/87, is expected by some analysts to lower slightly total area planted from last year and to have a marginal effect on the level of output.

In theory, lower loan rates for corn should increase domestic feed use and export sales. Corn exports in 1985/86 are expected to be about 85 percent of the previous year's shipments, while ending stocks are forecast by USDA at a huge 3.50 billion bushels. Some U.S. corn customers are believed to be delaying purchases, when possible, until prices fall to lower levels in late 1986. The drop in corn prices should help U.S. exports although it may take some time before sales expand considerably.

Cotton

Last year, cotton growers had to reduce acreage by 30 percent to participate in the farm program, while the 1986 acreage reduction is only 25 percent. However, because of the likelihood of reduced market prices, an increased number of eligible producers are expected to sign up for the program. As a result, total plantings are expected to be below those in 1985. And, if weather does not match 1985's generally favorable conditions, a lower 1986 crop is considered possible.

Because of noncompetitive U.S. prices, exports in the current 1985/86 season are expected by USDA to be only 2.3 million bales, or 37 percent of the previous season's level and the lowest since the 1960s. With the new farm bill, this dismal export situation should improve in 1986/87. The loan rate was lowered 4 percent in 1986 to 55 cents per pound. However, an expected 20-percent reduction in the loan repayment level brings the effective loan rate to 44 cents. U.S. market prices in the lower end of the 44 to 55-cent range are likely to attract increased foreign buying. This is especially true since importers often consider U.S. cotton to have advantages over other origins. U.S. cotton is known for its quality and consistency and, in import transactions, is often viewed as having transportation advantages. Furthermore, financing arrangements for sales and shipments can generally be made efficiently in the U.S. Together, these factors indicate an expansion in U.S. export sales of cotton during the period covered by the new bill. If U.S. cotton prices drop and exports expand, some countries that are marginal producers could cut back plantings. However, this would not happen quickly, but would be a long-term adjustment.

Lower U.S. cotton prices are also likely to stimulate domestic demand. U.S. cotton consumption in 1985/86 is forecast by USDA at 6.2 million bales, the highest level since 1979/80 mainly because of increasing consumer preferences for cotton over synthetics. Lower prices could help quicken the pace of cotton use by mills.

The cotton supply/demand outlook in 1986/87 could therefore be quite different from that in 1985/86. Supplies are likely to tighten somewhat with lower plantings, better exports, and improved U.S. usage. The 1986/87 beginning stocks, anticipated by USDA at 9.3 million bales (the largest since 1965), could be drawn down if there is a significant decline in production or an upward adjustment in consumption and exports.

Soybeans

By law, the 1986 loan rate for soybeans cannot be announced until August 1, 1986. While the farm bill set the 1986 loan rate at $5.02, the same level that has prevailed for the last six years, this rate may be reduced an additional 5 percent by USDA in order to make soybeans more competitive globally. Early in 1986, observers were expecting that the effective 1986 rate would be $4.77. If this is the case, market prices of soybeans are likely to work lower during 1986. Historically, the soybean loan rate has been quite an effective floor for market prices. The possibility that some CCC soybean stocks may be released when producers redeem "generic" PIK certificates (issued for advance diversion and deficiency payments on wheat, feedgrains, and cotton) also indicates downside potential for prices.

The size of the 1986/87 U.S. crop will be an important factor in determining market prices late in 1986. The 1985/86 soybean crop was near record at 2.10 billion bushels, up 14 percent from the previous year. Despite the loan cut, planted acreage for the 1986/87 crop is expected to be virtually unchanged, according to a number of analysts and the American Soybean Association. (In 1986, corn, protected by the $3.03 target price, is expected to be more profitable than soybeans for most farmers.) If weather conditions are favorable in the 1986/87 season and the soybean crop is another large one, U.S. prices should be under strong pressure. This is particularly true because U.S. soybean stocks have reached record levels, with USDA predicting the 1986/87 carryover at 500 million bushels, up 58 percent from year-before ending stocks.

Production by major foreign competitors—Brazil and Argentina—will be another critical factor this year. In 1986, U.S. prices have been helped by indications of a reduced 1986 Brazilian crop (their 1986/87 crop year) because of insufficient rainfall in southern producing areas. Early in 1986, the Brazilian government was forecasting a 12.39 million tonne crop in 1986, compared with 17.80 million in 1985 and 15.15 million in 1984; *Oil World*, the German statistical publication, predicted a 1986 crop of 12 million tonnes. However, this year's expected decline in Brazilian output is offset by the increase in U.S. stocks. With large U.S. supplies, world stocks in 1985/86 are estimated by USDA to be up 10 percent from the year before.

U.S. exports in 1985/86 have improved to an estimated 770 million bushels, according to USDA in March, 1986, because of increased Soviet buying. However, exports are still far below the records of over 900 million bushels annually in 1981/82 and 1982/83. On balance, large U.S. supplies and the lower loan rate suggest a fall in market prices for soybeans, barring a drought or other unforeseen development.

Conclusion

The new farm act is a commendable piece of legislation given the many problems in the agricultural sector that policymakers faced. By maintaining target prices at high levels, the act helps prevent further erosion of farm income. Through lowering loan rates, the farm program will likely stimulate higher U.S. farm exports.

Yet, the legislation has its negative aspects. Because of the breadth of discretionary authority given the Agriculture Secretary, there has been uncertainty about many details of the farm program, playing havoc with producer decisions and causing nervous agricultural markets. Furthermore, the law was passed too late to allow winter wheat producers a chance to assess the program before planting. Additionally, the new farm bill is going to require more government spending than past programs.

We can expect to see further adjustments in farm legislation during the period that the bill covers. For example, Congress has already acted to cut funding for the Export Bonus Program from levels mandated in the bill, and has revised provisions relating to cross-compliance, unsubsidized crop plantings, and producer yield calculations. Furthermore, federal budget cutting will reduce the payments to which farmers are entitled under the program.

(Editor's note: Since the writing of this article, early March 1986, some aspects of the new farm bill have been changed by law.)

THE CHANGING MARKET STRUCTURES OF CRUDE OIL AND PLATINUM

BY ELIZABETH L. SAXE, Ph.D.

At the turn of the year 1985–86, the oil and platinum markets were moving in unfamiliar patterns. Crude oil was acting like a classic commodity responding to worldwide supply/demand fundamentals. Platinum was separating from the precious metals trading complex and asserting its individuality in the marketplace. Both these trends were emerging through most of 1985; market activity in early 1986 confirmed them.

Crude Oil: A Managed Market

By the end of 1985, oil market analysts were declaring the end of the OPEC era that had lasted a quarter of a century. A month later, with crude oil prices at their lowest point since 1979, the industry's long standing practice of administered pricing ended abruptly. On January 27, 1986, *The New York Times* reported a consensus among energy specialists that free market forces were determining crude oil prices and production for the first time since the Texas Railroad Commission was legally empowered to limit production in the state's rich oilfields in the early 1930s. Others could point to the secret 1928 agreement among the industry's three major international producers to manage the world market as initiating the age of restricted competition.

A number of U.S. companies, including the four other major internationals, later joined in this agreement. Implementing it was supported by the companies' organizations, which included upstream (exploration and production) and downstream (refining and marketing) activities under the same corporate umbrella; more to the point, on the same corporate balance sheet. Production, inventory and marketing were integrated into unified policy programs, coordinated with the worldwide objective of increasing profits by controlling production.

Concessions and production contracts accepted by sovereign governments enabled the international majors to achieve their goals in the pre-World War II period. These negotiations were facilitated by the laws of those nations whose governments owned large oil reserves. The monopoly Anglo-Iranian Oil Company, consortia of international producers such as the Iraq Petroleum Company and ARAMCO, and individual companies acting in concert paid royalties and taxes in return for a virtually free hand in exploration, production, and pricing decisions.

The system worked as the majors intended. Their power to make unilateral production decisions and control access to the international downstream market was great enough to blunt the effect of economic policy decisions of national governments. For example, when Mexico nationalized its oil industry in 1938, the majors shifted their attention from Mexico to Venezuela, at which point Mexican production disappeared from the the world market. Iran's nationalization of oil production in 1951 also failed in its objective and the National Iranian Oil Company became merely a swing producer for a new marketing consortium of major companies formed in 1954.

In some other areas, relations between the majors and host governments were stabilized by agreements to divide oil profits equally. The first such agreements were made in Venezuela in 1945. It was only later that the majors realized how significant the agreements really were to their market position.

The profit sharing agreements led to government insistence on exact accounting of the revenues derived from their own crude. The majors responded by basing payments on published posted prices, which satisfied host government demands for hard data and also reduced their home tax basis. The significance of this practice is that it introduced rudimentary price transparency into the international major-host government relationship.

Basing profit sharing on posted prices ultimately undermined the majors' ability to make unilateral pricing decisions. As long as supply was stable, prices and revenues were also stable and potential problems remained hidden. However, the decision of Libya in the 1950s to develop its oil resources quickly by inviting independent companies to compete for concessions introduced a new factor into the equation. About the same time, Soviet oil production, which had not been a threat to the majors for thirty years, reappeared in Western markets.

In the face of increasing supplies and falling market values of their crude, the majors cut posted prices. This was a highly visible act which threatened the tax revenues of governments with whom they had profit sharing agreements. The first cut in postings translated into a 10 percent reduction in oil tax revenued for the Middle East producers. The second cut, in 1960, brought the Arab producers and the Shah of Iran together with the Venezuelans to form a producers' cartel.

OPEC was immediately successful in its challenge to the majors. The countries forced the oil companies to restore and maintain their posted, tax reference prices despite continued downward pressure on product prices from new crude supplies. This marked the start of price fixing by host governments and the first break in the majors' integration of upstream and downstream operations and earnings. The majors could no longer change postings to reflect conditions in the refining and marketing sector of the business. As the producers moved toward isolating their revenues from the realities of the marketplace, more price risk was forced on the majors.

From 1960 to 1983, official prices moved in one direction only, rising from $1.80 per barrel for the benchmark Saudi Light to $34.00. OPEC's decision in 1983 to cut the benchmark Official Selling Price (OSP) to $29 per barrel has been construed as a turning point in pricing policy. The Saudis concluded that the OSP had peaked since it encouraged conservation, substitution and new production in consuming nations. OPEC tried to discipline itself and set a new price supported by export quotas. The economics of the marketplace, however, began to overtake cartel considerations regardless of new OPEC strategies.

The key issue was not the level of OSP necessary to maintain demand for OPEC production, but the relevance of any administered price to the world marketplace. This question was finally addressed by OPEC in December 1985. Discounting had been undermining OSP integrity for some time, and formal rejection of OSP in favor of focusing on competition for market share signified a realistic appraisal of current market dynamics.

Crude Oil: A Commodity Market

The OPEC program developed between 1960 and 1979 brought about a fundamental restructuring of world crude oil production, distribution, demand and pricing. The changes in these variables since 1980 have resulted in the new synthesis identified by industry analysts as the "commoditization of oil," which has led, for example, to OPEC focusing on market share instead of price.

Today's crude oil market has the essential attributes of classic commodity markets:

- many suppliers and many consumers, none of which has the power to dominate;
- a fungible commodity traded in large quantities; and,
- uncertain supply and demand leading to price risk for all participants.

Fundamental to this shift in the structure of the crude oil market was a change in ownership of the crude and new sources of supply. Between 1973 and 1984, the major international companies lost control of 15 million barrels per day of production, an amount equal to 49 percent of their 1972 supply. The majors, responsible to their shareholders and subject to growing pressures in the consuming countries, found themselves in a new world of risk and uncertainty. At the same time, new production came on stream from Alaska, Mexico and the North Sea. This alleviated supply uncertainties to some degree, but it also added to the already expanded number of market participants. Competition for market share did not appear immediately troublesome, however, because of the rush to build inventories after the Iranian revolution in 1979–80.

The desperate search for oil at any price focused attention on the spot market, initially as a swing supplier, then as a price indicator and finally as a trading sector. Steadily rising prices for non-contract supplies encouraged the cartel producers to raise their OSP. Failure to honor some contracts increased transactions on the spot market and forced buyers to pay the higher spot price.

When the panic subsided in 1981 and inventory drawdown pushed spot prices lower than the OSP, OPEC tried to hold its OSP. This had the effect of driving additional contract business into the spot market and stimulating speculation. From what had once been a convenient but marginal vehicle for correcting the occasional market imbalance and accounting for about 5 per cent of internationally traded barrels in 1979, the spot oil market became central to producer, marketer and trader strategies in the 1980s.

Therefore, beginning in 1981, OPEC was challenged by lower demand and increasing production from non-members. OPEC was also fragmenting as new producers with their own national agendas came onstream and as the spot market became more active traders and speculators multiplied. Also in 1981, the expiration of U.S. price controls (on crude and gasoline) removed the barriers to full American participation in the international marketplace.

There were thus more participants on both the buy and sell sides—national oil companies, the international majors, independent producers, refiners and traders. Deintegration of the upstream and downstream sectors made supply and demand unpredictable, leading to price volatility and price risk for all participants. As demand stubbornly remained below combined OPEC and non-OPEC capacity, the cartel imposed restrictions on its output. The International Energy Agency's estimate for 1985 of 15.85 million barrels per day of OPEC production is only slightly above one-half its 1979 level of 31 million.

Despite the sacrifice, OPEC has seen steady erosion of its price leadership. Much more credible price signals were being generated on the spot market where any buyer—refiner or reseller—could negotiate with any seller—producer or trading intermediary. By 1985, it was estimated that more than half—and by some sources, up to three-quarters—of internationally traded barrels were changing hands on the spot market or at spot-related prices.

The value of spot market price signals, however, is diminished by gaps in conventional reporting systems. The spot market consists of many principals and brokers negotiating many transactions without knowledge of each others' activities. Total volume traded can only be estimated, and prices collected by reporting services may represent only a small portion of it. In addition, the nature of the system means that by the time prices and volume estimates are published, they are already out of date. In periods of relative price stability these drawbacks are not crucial, but times of major market realignments accompanied by highly volatile prices require a more visible and efficient price discovery mechanism.

Exchange-traded crude oil futures are meeting this need. Trading in the crude oil contract introduced on the New York Mercantile Exchange in March 1983 reached an average daily volume of 7.3 million-barrel equivalents in 1984 and 15.9 million-barrel equivalents in 1985. Convergence of NYMEX par grade West Texas Intermediate prices with reported spot prices of leading North Sea and African grades also deliverable against the contract attests to the validity of the NYMEX price as an international benchmark.

Crude Oil, Commodity Pricing and Market Re-Integration

One manifestation of this recent development is Saudi Arabia's netback pricing. Saudi Arabia for years chose to be the swing producer of the cartel. In this role, it refused to discount the OSP when market supplies increased and instead lowered its production from the 1980 peak of 9.9 MBD to an estimated 2.2 MBD by summer 1985. Annual revenues fell from $110 billion to $26 billion during this period. Its economy contracted accordingly, and the chilling possibility of being driven out of the market entirely required a new policy.

Netback or "deemed realization" pricing ties the price of crude oil to the market place of refined products. While terms vary among contracts, their essence is to price crude on the basis of its derivative products minus their corresponding refining and transportation costs. What the producer gets is a guaranteed sale.

The Saudi move to netback pricing in 1985 marked the beginning of a new trend in the industry. By early December, the entire cartel adopted a new strategy of protecting its "fair share" of the market. Since then, netback deals by other producers have been reported in the trade press and are beginning to push non-OPEC, especially North Sea, crude out of some markets.

This strategy has had three effects. First, it has restored free market pricing to the industry. Secondly, it also has asserted Saudi leadership because the Kingdom's immense recoverable reserves, estimated at 162 billion barrels, and low production costs allow great pricing flexibility. And thirdly, it has begun to reintegrate the upstream and downstream industry sectors severed by OPEC in 1960.

Over the past several years, OPEC producers have been developing their own downstream capabilities and their refined products have become increasingly available in world markets. However, this has occurred in an environment governed by the concept of OSPs with refiners bearing the price risk imposed by an oversupplied product market. With the OSP rejected, netback pricing is said to guarantee the refiner a profit margin in return for guaranteeing the producer an outlet. Crude producers are now accepting product price risk as the cost of maintaining production.

The crucial factors in the market have become product prices and refinery margins. Both producers and refiners need accurate price signals. Producers, moreover, having lifted product price risk from the shoulders of the refiners, need a way to shift it to another group of market participants.

The NYMEX energy futures complex is uniquely suited to meet these needs. Price discovery through the products contracts—heating oil and gasoline—will take on much greater significance. As products have figured more prominently in the international market, a wider variety of players has begun trading these contracts. This trend is expected to accelerate and the volume of trading to rise.

Increased hedging is also expected by producers through both outright positions in crude and through spreads. Since the origin of the price risk alleviated by netback pricing is refinery margins, trading the spread can benefit the producer.

With the acceptance of the NYMEX futures price by cash market traders, crude oil pricing has become completely transparent. Reporting requirements for U.S. commodity futures exchanges and price information reported by the international press and electronic media allow anyone anywhere any time to know the size of the market and where it is pricing crude. The mingling of commercial and non-commercial hedging and speculative interests in the NYMEX trading ring broadens the range of opinions and positions in the market to a greater degree than has ever been possible.

The process that began with the producers' insistence on a published tax reference price, over 25 years ago, was completed. OPEC found, as the Seven Sisters had found before them, that knowledge shared is power shared, willingly or otherwise.

Platinum

The platinum market resembles petroleum in many respects. Both are products of the modern age, essential to twentieth century industry. Primary sources of both are unevenly distributed; major supplies lie in areas far from major consumers and output is led by a small number of producers. In both cases, prices set for many years by producers for the purpose of stimulating demand or achieving revenue targets have been replaced by free market pricing.

The parallels are not exact by any means, nor do they apply to all aspects of these two markets. The world economy has not experienced an upheaval triggered by platinum supply disruption or producer price escalation comparable to the oil shocks of the 1970s. Public understanding of the dynamics of the platinum market is much less than of petroleum and public attention to it has not reached the same level. This is partly due to the great disparity in the markets' relative sizes. Crude oil is the world's largest cash commodity. At $20 per barrel, consumption in the market-led economies of an estimated 45 million barrels per day is worth approximately $325 billion a year. At $350 per troy ounce, the dollar value of the estimated 2.7 million troy ounces of platinum that entered the market-led economies in 1985 is 0.3 per cent of the value of the crude.

Nevertheless, they have both moved from administered to competitive pricing in response to similar market forces; and they are both industrial commodities whose price behavior has responded directly to changing international dynamics and shifts that have occurred recently. And, in both cases, the existence of a futures market open to producers, marketers, dealers, end-users and investors on an equal basis has been an important and significant factor.

Platinum: A Modern Metal

Platinum is a hard, heavy substance that puzzled miners and metallurgists until modern times. While there are examples of decorative use of platinum in ancient Egypt and among the Indians of early America, it was not until the eighteenth century that platinum was correctly analyzed and its properties accurately described. Technology did not permit refining on a commercial scale until the nineteenth century, but once that hurdle was cleared it became possible to develop industrial applications that made use of the metal's characteristics.

The basic qualities of platinum are high density, resistance to corrosion, a very high melting point, extreme ductility and conductivity, and high catalytic activity. Platinum today is used alone and in alloys in the manufacture of optical glass and glass fibers, for chemical apparatus, in high-temperature measuring devices for the steel industry, in circuits for computers and types of electrical and electronic instruments, in jewelry, and medical and dental devices. Catalysts of platinum or platinum combined with related platinum group metals such as palladium, rhodium and ruthenium are used in the manufacture of nitric acid fertilizers, high octane gasoline, petrochemical feedstocks, and for automobile and industrial pollution control.

Unlike gold and silver, platinum has not been widely used in coinage. Platinum coins were minted in Russia for about twenty years in the mid-nineteenth century, but the program was discontinued when the world market price of the metal fell too low to support the coinage value. The coins were recalled, and few survive. The platinum market, therefore, lacks a broad history of government price support, central bank involvement, or individual coin hoarding.

Demand in the early twentieth century was about 200,000 troy ounces a year. Platinum was successfully promoted as a luxury item by jewelers and fabricators in Europe and Japan, and research continued in chemical and industrial applications. Its use in chemicals and explosives caused a flurry of panic during World War I when the allies feared being cut off from Russia which supplied a large part of their needs.

It was during the interwar years that the foundation was laid for today's platinum market. The discovery of platinum-rich ore in South Africa's Bushveld igneous complex and further exploration and analysis by the geologist Hans Merensky marked the beginning of a new stage in this market's development. Until the mid-1920's, demand was met by relatively modest Russian and Canadian production. A small amount of platinum was also obtained as a by-product of South African gold mining. Canadian platinum was a by-product, as it still is, of working the rich copper-nickel lodes of the Sudbury district of Ontario. Discovery of the vast resources of the Merensky Reef meant that platinum could be mined as a primary product in much larger quantities than ever before.

Platinum: The Rise of South African Producer Influence

Platinum reserves in the Merensky Reef and the nearby UG2 ("Upper Group") deposit estimated at 500 million troy ounces are sufficient to meet the world's needs for nearly two hundred years at the present rate of consumption. This mineral wealth gives South African producers a major role in the world market. Their production and pricing policies carry great weight in determining its organization and operation. Free market forces, however, have recently taken the lead in reshaping the platinum market, as they have in reshaping the crude oil market, after a long period of strong producer price leadership.

The rise of South African producer influence was a gradual process. Development of the Merensky Reef deposits was discouraged by the worldwide depression of the 1930s which drove down platinum demand. Despite the immense potential of her mines, South Africa produced less than 10 percent of world output through the 1930s. Mining in the Merensky Reef was, in fact, halted completely for a while. However, the business structure for South African mining and marketing which came to support later growth was set in place during this period. Johnson Matthey in London obtained refining and marketing rights to all platinum group metals mined from the Reef and, in 1931, the two principal mining operations merged to form Rustenburg Platinum Mines Ltd.

Rustenburg remained the sole South African producer for over thirty-five years. During that time it grew from insignificance in a limited market to dominance in an expanding one. But its progress was slow. As late as the early 1950s, Inco of Canada still held its lead established during the '30s. World supply data from the immediate post-World War II decade show total Canadian sources equal to combined South African and Soviet supplies in 1946, and still greater than either in 1950. Then, between 1950 and 1955, South African production nearly tripled, outstripping the Canadian and Soviet rates of growth by a considerable amount. The total market also grew very fast during those few years, from 400,000 to 650,000 troy ounces annually.

The impetus for the burgeoning platinum market was new technology in oil refining. Platinum reforming catalysts began to be used to produce high octane gasoline and petrochemical feedstocks. However, since catalysts cause chemical reactions without being consumed by them, platinum demand from catalyst users is dependent upon the addition of new units. Once initial installation needs were satisfied, demand slackened until new technology developed, creating new needs. Thus, after its initial surge in the mid-1950s, refinery demand slowed until another round of innovation, isomerization catalysts, stimulated it again in the mid-1960s. In the interim, producers benefited from sharply rising jewelry demand in Japan.

The implications of Rustenburg's vast resources began to influence pricing during the first refinery demand boom. Its ability to expand production to accommodate refinery demand had brought widespread recognition of its potential and reliability as a supplier. To encourage future demand for its output and avoid the boom and bust cycles typical of the mining industry, Rustenburg adopted a policy of promoting new industrial applications by making adequate supplies available at stable prices.

By 1965, the world market had reached the one million ounce a year milestone, and a two-tier pricing system was firmly in place. There were only three significant producers—Rustenburg, Inco, and the Soviet state-owned Siberian mines which produced platinum as a by-product of nickel. Rustenburg sold most of its output through Johnson Matthey and a smaller amount through Engelhard; Inco sold all of its output through Engelhard; and the Soviets exported platinum through their marketing agency Almazjuvelierexport. Johnson Matthey and Engelhard sold primarily to major industrial users with whom they had longstanding relationships. Smaller, occasional users were supplied by the dealer market.

Producer prices quoted by Johnson Matthey for Rustenburg output were changed infrequently. They were followed closely by Inco's agent, so customers of the two companies rarely paid significantly different prices. They could, however, pay significantly more or less than dealer customers, who formed the spot market. The wild card was the USSR.

While the Soviets discuss their marketing policies even less than other producers, reports of Soviet sales indicate that they probe the market for favorable opportunities, at times to the dismay of their Western competitors. In the early post-World War II years, the Soviets offered platinum at very much lower prices than the Western producers. This policy was interpreted in the West as an attempt to secure market share and badly needed hard currency when demand was falling. When refinery demand picked up, Soviet policy changed to one of seeking higher prices. Then, observers saw them withdraw for a time in the early 1960s despite new selling opportunities. Later in that decade, they reappeared, selling at consistently higher prices than the Western producers. With dealer prices rising into the $300 an ounce range and producer prices held at $190, there was considerable room for them to maneuver.

The New York Mercantile Exchange platinum futures market opened in 1956, but it was nearly invisible for many years. The 50-troy-ounce platinum contract was the Exchange's first non-agricultural product. It was created specifically to diversify the Exchange's business and to offer members new trading opportunities in the industrial marketplace. It was introduced after consultation with South African government and mining company officials, as well as local traders, but it did not attract broad trading interest for a while. Annual volume reached a high of 686 contracts in 1959, then fell to zero in 1962. A concerted effort by the contract's original supporter to revive it as a trading vehicle succeeded, however, and volume moved into the 1000-contract-plus range in 1963, '64 and '65.

Fundamental reorientation of the silver market in the late 1960s, followed by the inflationary pressures of the 1970s and a similar change for gold, forced changes in the platinum market structure which undermined producer dominance of pricing decisions. When Rustenburg announced a new pricing policy in 1983, the market was very much larger than it had been thirty years earlier both in amount of physical metal sold and number of participants; an influential investment sector had developed, the management policies of industrial users had tightened, and the credibility of price discovery by the futures market had gained widespread acceptance.

Emerging Investor Interest and Spot Market Pressure on the Producer Price

The decade of the 1960s was a watershed in the precious metals markets. The U.S. government returned silver pricing to the free market after thirty years of guaranteeing it at $1.293 an ounce, and took the first steps toward abandoning convertibility of the dollar to gold at $35 an ounce. The first change in silver market activity appeared in 1961 when the U.S. Treasury temporarily suspended sales to industrial users and speculators rushed to build positions on the forward market in London. Repeal of the Silver Purchase Act of 1934 released monetary reserves for sale in 1963, opening the way for the revival of silver futures trading in New York. By maintaining a flow of demonetized silver into the market, the Treasury held the effective ceiling at the statutory $1.293 an ounce until 1967 when it halted sales to the open market. The Treasury then announced that only $1 and $2 silver certificates and end use certificates issued to U.S. industrial users would be redeemed at $1.293, and only for another year.

The reopening of a free market in silver in 1963 stimulated interest in platinum, the other precious metal not under government control. Repeal of the Silver Purchase Act contributed to revived platinum futures trading on the New York Mercantile Exchange from 1963 to 1966, and the 1967 Treasury announcement pushed volume to 16,000 for that year, 15,000 above 1966. In 1968, when silver traded free of silver certificate redemption for the first time since 1934, New York Mercantile Exchange platinum futures volume reached 94,000 contracts.

Also stimulating trading interest in platinum at the end of the 1960s were environmental concerns. Legislation mandating some form of automobile emission controls, which would lead to heavy demand for refinery and automobile catalysts, was anticipated. This in fact occurred, driving industrial demand to new heights and increasing public awareness of platinum as a commodity.

In 1969, a new South African producer, Impala, entered the market, following Rustenburg's strategy of seeking industrial customers by offering a stable price through a single agent, in this case Ayrton Metals Co. Although automobile industry demand was not anticipated when Impala's corporate parent Gencor decided to move ahead to develop the mine in the mid-1960s, the timing was right. Impala has become the world's second largest platinum supplier. A third, much smaller South African producer, Western Platinum Co., began its operations in 1973.

Rustenburg and Impala directly supply automobile manufacturers. Competition between the two companies for the original contracts in the early 1970s required them both to revise their pricing practices. The automobile companies negotiated a price based on a formula linked to production costs. Market analysts saw the producers' eagerness to secure steady offtake by the automobile industry as resulting in a third price tier below both prevailing free market prices and the prices offered other industrial customers.

Free market prices through the 1970s were buffeted by the same forces that transformed silver and gold from investment backwaters to closely watched indicators of economic trends. Platinum began to acquire a quasi-monetary function for investors seeking a store of value and who traded it like silver and gold. In addition, platinum's scarcity, its delicately balanced supply/demand fundamentals, and its importance as an industrial material gave it a unique position in the spectrum of precious metals which continues under the greatly altered economic conditions of the 1980s.

The early 1970s saw demonetization of gold coincide with the first oil price shock, which precipitated the revolution in the world economy. A two-tier gold market segregating central bank transactions at $35 an ounce from transactions by industrial users, jewelers and investors was established in 1968 as the linchpin of an international effort to defend the dollar against devaluation. Three years later, in 1971, dollar convertibility to gold was halted as the pressure on Treasury gold stocks of chronic U.S. balance of payments deficits was recognized as irreversible. Two years after that, in 1973, the two-tier market was abandoned. All gold transactions were funneled into the open market and a gold futures market opened in Canada. Legislation returning the right to own and trade gold to private citizens in the United States opened the door to gold contracts on U.S. futures exchanges at the beginning of 1975.

The essential elements for a trading and investment market for both gold and silver were, therefore, in place when the oil embargo of 1973–74 stimulated widespread hyper-inflation in the years that followed. Large supplies of metal were available, markets for trading physical silver and silver futures were well established and gold bars and coins could be legally purchased by private citizens seeking a hedge against mounting inflation.

Although private investment in platinum had not been discouraged by government monetary controls, there was little of it in the open market available for investors and traders until the early 1970s. Then, the increased South African production plus high Soviet exports and a reduction in secondary inventories stimulated by the effects of oil price increases dumped unprecedented quantities of platinum onto the market. This was a case of liquidity seeking traders, and traders quickly appeared. Dealers and investors increased in number in Europe and the United States with London, Zurich and New York as the centers of the cash market for physical metal.

A new element entered the pricing scenario at this time when three London dealers organized a twice daily platinum quotation on the model of the London dealer gold and silver fixings. The morning quotation acted as a benchmark for the European spot market. Later in the day, the afternoon quotation for the European market could be supplemented by the New York Mercantile Exchange futures price for use by the U.S. cash market. Platinum futures volume from 1972 through 1977 was between 90,000 and 200,000 contracts annually, with the lower figure registered in 1975 (the first year gold futures were available as an investment vehicle) and the higher in 1974 when inventories were being reduced.

A surge in platinum futures volume to over 400,000 contracts in 1978 reflected investor and industrial competition for platinum as the economy adjusted to higher oil prices. South African production remained relatively flat despite increased demand and Soviet sales fell to a third of their 1977 level. The resulting 560-thousand-ounce supply deficit represented approximately 20 percent of Western world demand and drove both producer and dealer prices up steeply during the year. In 1978, for the first time, the producer price ratcheted up sharply; after holding at $162 for thirteen months, it moved up seven times during 1978 to end the year at $300. Dealer prices reached a high of $385 and investor holdings fell sharply.

The explosion of oil prices, inflation and widespread concern about international monetary stability that followed the Iranian revolution and Soviet invasion of Afghanistan in 1979 stimulated markets for tangible assets of all kinds—antiques, stamps, rugs, real estate, and precious metals. The fungibility of bullion coins, bars, and futures; the low cost of individual units—a few dollars for an ounce of silver, a few hundred for a gold coin—and, for futures, the benefit of high leverage and liquidity made precious metals investments especially attractive. Platinum developed broad investor appeal. And, its scarcity relative to gold and silver resulted in greater price volatility which carried platinum to a peak of $1040 an ounce before the bubble burst.

In a determined effort to derail the inflationary spiral, the Federal Reserve abruptly shifted its policy from managing the money supply in order to maintain stable interest rates to controlling the money supply and allowing interest rates to fluctuate according to market conditions. Interest rates rose, non-income producing assets quickly lost their luster and the cost to business of holding inventories skyrocketed. Platinum prices retreated as rapidly as they had risen.

In contrast to these extraordinary free market price gyrations, producer prices rose in slow measured steps from $325 an ounce in the beginning of 1979 to $425 in mid-1980. Foregoing the possibility of windfall profits was not as much of a sacrifice as it might appear because market observers reported producer participation in very profitable futures market moves. Nevertheless, the producers only modified their policy of maintaining predictable supplies at stable prices—and in the tumultuous markets of the time the modification can be considered slight. They confidently expected to be rewarded by continued customer loyalty whenever market conditions changed.

In the end their strategy failed. As free market prices moved lower, interest rates remained high and the economy moved into recession, forcing even tighter inventory management. The pressures on industrial users were too great to resist. They took the minimum quantities specified in their contracts and turned to the softening spot market for their remaining needs. The price advantage was considerable. While the producer price was held at $475 an ounce, platinum traded as low as $243 on the spot market in 1982.

Early in 1983, Rustenburg, the leading producer, made a unilateral decision effectively revising the pricing system for all users. The company announced that it would allow 60 percent of its output to be sold at free market prices, and keep 40 percent available for contract buyers. Impala was determined to adhere to its producer price, but the significance of this step was minor. A much larger proportion of its output was assigned to contracts with automobile manufacturers and Japanese jewelry fabricators than was the case for Rustenburg, and these contracts were widely believed to take spot market prices into account. The market thus shifted from one in which stability was highly valued to one in which flexibility had become a key pricing consideration.

Conclusion:

The structure of the platinum market today remains a mosaic of long-term contracts, spot and futures transactions, but pricing is determined more on the basis of day-to-day assessment of fundamentals than ever before. This shift in emphasis is due to the combined effects of unrelated developments in the 1970s the U.S. environmental protection movement, demonetization of gold, the oil price shocks and their aftermath which led to the Federal Reserve's shift in monetary policy.

Automobile emission control legislation in the United States stimulated expansion of the platinum market by increasing the amount produced, and also by assuring the viability of a second major South African producer. Western world demand doubled between 1960 and 1970 before stockpiling for automobile catalyst production began, but the U.S. Clean Air Act of 1970 opened a vast new market for the producers. It also introduced a new measure of competition into the industry as the two companies vied for supply to the automobile manufacturers.

Although Western Platinum's output is far below Rustenburg's and Impala's, its presence in the market since 1973 added to competition on the producer side. In addition, Inco and the Soviet Union remain suppliers at spot prices, Inco marketing its own output and the USSR selling through its official marketing agent. A second Canadian producer, Falconbridge Ltd., also supplies the market at spot prices.

On the demand side, the development of investor interest in platinum has multiplied the number of buyers in the spot market and contributed to liquidity in the futures market. This market segment has also contributed to the highly volatile price moves of the past several years by competing with industry first for limited supplies and later for limited demand.

The new scenario consists of several producers, many consumers, active price competition, and a growing trading sector. Spot market centers are Zurich, Frankfurt, London and New York; and in Asia, Sydney, Singapore, Hong Kong and Tokyo. While the quantity of platinum entering the market is still less than 3 million ounces annually, recent surges in futures volume indicate that the trading sector is active. Total platinum futures trading on the New York Mercantile Exchange of 693,256 contracts in 1985 represents 34.7 million ounces, the second highest volume in the contract's thirty-year history and more than the total volume of platinum traded on the Exchange from 1956 to 1973. Daily volume in 1985 reached a record high of 13,145 contracts, representing over 650,000 ounces, in December.

Investor demand has now become the key factor as producers, users and investors interact in the spot market. Market analysts see investors now accounting for 10 percent of total demand, and they expect this figure to rise. Unlike the rush to tangible assets in the inflation-led market of 1979–80, investor interest rests now on awareness of new dimensions in industrial applications, crosscurrents of political uncertainty in South Africa and marketing decisions by the USSR, as well as the inclusion of precious metals in portfolios as a hedge against monetary instability. The dual nature of platinum as an essential industrial commodity and a store of value makes it an attractive holding from several points of view.

The pricing revolution for platinum which began with silver demonetization twenty years ago is now complete. The price transparency and hedging and trading opportunities provided by platinum futures have encouraged this trend. In today's market, the price discovery of NYMEX platinum trading is a cornerstone of round-the-clock market quotes available to traders. It is supplemented by futures trading begun in 1984 on the Tokyo Commodity Exchange for Industry and the London quotation begun in 1974.

The evolution in oil and platinum pricing tells much about the power of commodity markets to impose their own logic on their participants. A spot market inevitably challenges a producer price, and once an active trading sector develops the challenge builds momentum. This occurred in both the vast crude oil market and the small platinum market. In both cases producers welcomed a runup in spot prices; in both cases producers attempted to ignore a softening spot market and found themselves cut off from traditional customers.

While the conceptual reality of a spot market is quite clear, the practical reality is often cloudy. A timely, accurate and complete price picture is extremely difficult to assemble from a multitude of cash market brokers and traders handling a wide variety of transactions. The transparent pricing of a futures market for an accepted par grade integrating both commercial and investor transactions, therefore, becomes the effective benchmark for physical trading. This has occurred for corn, for copper, for currencies and other commodities. It has now occurred for platinum and oil. In the one case, the futures market developed parallel to cash spot trading; in the other, the need for a futures market became so pressing that once one opened, trading flooded in immediately. For both these products, the cash and futures markets are now thoroughly integrated.

FUTURES VOLUME HIGHLIGHTS

1985 in Comparison with 1984

Rank	Contracts With Volume Over 100,000	1985		1984		
		Contracts	%	Contracts	%	Rank
1.	T-Bonds, CBT	40,448,357	25.49%	29,963,280	20.06%	(1)
2.	S&P 500 Index, CME	15,055,955	9.49%	12,363,592	8.28%	(2)
3.	Eurodollar, CME	8,900,528	5.61%	4,192,952	2.81%	(8)
4.	Gold, COMEX	7,773,834	4.90%	9,115,504	6.10%	(4)
5.	Soybeans, CBT	7,392,128	4.66%	11,362,691	7.61%	(3)
6.	Deutsche Mark, CME	6,449,384	4.06%	5,508,308	3.69%	(7)
7.	Corn, CBT	6,392,812	4.03%	9,108,526	6.10%	(5)
8.	Silver (5,000 oz), COMEX	4,821,206	3.04%	6,742,508	4.51%	(6)
9.	Swiss Franc, CME	4,758,159	3.00%	4,129,881	2.76%	(9)
10.	Live Cattle, CME	4,437,327	2.80%	3,553,270	2.38%	(12)
11.	Crude Oil, NYMEX	3,980,867	2.51%	1,840,342	1.23%	(23)
12.	Soybean Oil, CBT	3,647,408	2.30%	4,009,548	2.68%	(10)
13.	Soybean Meal, CBT	3,339,268	2.10%	3,822,179	2.56%	(11)
14.	Sugar #11, CSC	3,012,929	1.90%	2,449,549	1.64%	(17)
15.	T-Notes (6 1/2-10 yr), CBT	2,860,432	1.80%	1,661,862	1.11%	(24)
16.	NYSE Composite Index, NYFE	2,833,614	1.79%	3,456,798	2.31%	(13)
17.	British Pound, CME	2,799,024	1.76%	1,444,492	0.97%	(26)
18.	Copper, COMEX	2,444,552	1.54%	2,506,365	1.68%	(16)
19.	Japanese Yen, CME	2,415,094	1.52%	2,334,764	1.56%	(18)
20.	T-Bills (90-day), CME	2,413,338	1.52%	3,292,817	2.20%	(14)
21.	No. 2 Heating Oil, NY, NYMEX	2,207,733	1.39%	2,091,546	1.40%	(20)
22.	Wheat, CBT	2,127,962	1.34%	2,974,886	1.99%	(15)
23.	Major Market Index, CBT	2,062,083	1.30%	1,514,737	1.01%	(25)
24.	Live Hogs, CME	1,719,861	1.08%	2,169,030	1.45%	(19)
25.	Pork Bellies (frozen), CME	1,457,386	0.92%	1,908,045	1.28%	(21)
26.	Value Line Index, KCBOT	1,204,659	0.76%	910,956	0.61%	(32)
27.	Silver (1,000 oz), CBT	1,034,830	0.65%	1,887,257	1.26%	(22)
28.	Soybeans, MIDAM	843,231	0.53%	1,301,916	0.87%	(27)
29.	Cocoa, CSC	800,573	0.50%	1,127,752	0.75%	(29)
30.	Wheat, KCBOT	735,447	0.46%	956,668	0.64%	(30)
31.	Platinum, NYMEX	693,256	0.44%	571,127	0.38%	(37)
32.	Leaded Reg. Gasoline, NY, NYMEX	667,172	0.42%	653,630	0.44%	(35)
33.	Coffee "C", CSC	650,768	0.41%	499,133	0.33%	(38)
34.	Cotton #2, NYCE	636,492	0.40%	1,137,141	0.76%	(28)
35.	Lumber, CME	581,548	0.37%	753,568	0.50%	(34)
36.	Canadian Dollar, CME	468,996	0.30%	345,875	0.23%	(40)
37.	Corn, MIDAM	456,661	0.29%	604,992	0.41%	(36)
38.	Feeder Cattle, CME	455,881	0.29%	316,985	0.21%	(43)
39.	MMI Maxi, CBT	422,091	0.27%	--	--	
40.	Wheat, MIDAM	347,355	0.22%	404,508	0.27%	(39)
41.	Municipal Bond Index, CBT	334,691	0.21%	--	--	
42.	Wheat, MGE	297,509	0.19%	338,487	0.23%	(41)
43.	T-Bonds, MIDAM	297,033	0.19%	251,300	0.17%	(45)
44.	Orange Juice (forzen, conc.), NYCE	190,758	0.12%	317,364	0.21%	(42)
45.	Gold (Kilo), CBT	168,527	0.11%	302,717	0.20%	(44)
46.	NASDAQ-100, CBT	139,888	0.09%	--	--	
47.	Palladium, NYMEX	133,223	0.08%	159,019	0.11%	(47)
48.	Unleaded Gasoline, NY, NYMEX	132,611	0.08%	2,736	.00%	
49.	Swiss Franc, MIDAM	110,047	0.07%	99,385	0.07%	
	Contracts with Volume Over 100,000 Contracts 1/			2,334,749	1.56%	
	Contracts with Volume Under 100,000 Contracts	1,142,090	0.72%	577,488	0.39%	
TOTAL		158,696,578	100.00%	149,372,225	100.00%	

1/ Contracts over 100,000 traded in 1984 but not over 100,000 in 1985.

COMMODITY FUTURES CONTRACTS TRADED 1981 - 1985

	CONTRACT UNIT	1985	1984	1983	1982	1981
Wheat	5,000 bu	2,127,962	2,974,886	3,886,914	4,031,584	4,511,934
Corn	5,000 bu	6,392,812	9,108,526	11,924,576	7,948,257	10,674,986
Oats	5,000 bu	99,024	155,110	359,825	424,595	370,103
Soybeans	5,000 bu	7,392,128	11,362,691	13,680,324	9,165,520	10,489,932
Soybean Oil	60,000 lb	3,647,408	4,009,548	3,858,558	3,049,313	3,047,490
Soybean Meal	100 tons	3,339,268	3,822,179	3,872,453	2,784,423	3,039,633
Plywood	76,032 sq.ft.	--	4,466	50,424	100,001	175,189
Silver	5,000 oz	--	--	21,470	77,682	214,236
Silver	1,000 oz	1,034,830	1,887,257	2,643,166	775,136	184,776
Gold	100 oz	--	--	4,133	19,515	14,749
Gold	Kilo	168,527	302,717	302,745	--	--
GNMA Mrtges, CD	$100,000	--	--	--	--	175
GNMA Mrtges, CDR	$100,000	84,396	862,450	1,692,017	2,055,648	2,292,882
GNMA II	$100,000	--	37,615	--	--	--
Com. Paper (90-day)	$1,000,000	--	--	--	--	49
T-Bonds	$100,000	40,448,357	29,963,280	19,550,535	16,739,695	13,907,988
T-Notes (2-year)	$100,000	--	--	562	--	--
T-Notes (4-6 year)	$100,000	--	--	--	--	2,721
T-Notes (6 1/2-10 yr)	$100,000	2,860,432	1,661,862	814,505	881,325	--
Domestic CD (90-day)	$1,000,000	--	--	--	145,360	158,920
Unleaded Reg. Gasoline	1,000 bbl	--	--	51,573	8,736	--
Crude Oil	1,000 bbl	--	628	94,591	--	--
Heating Oil	1,000 bbl	--	--	3,152	--	--
Municipal Bond Index	$1,000 x Index	334,691	--	--	--	--
Major Market Index	$100 x Index	2,062,083	1,514,737	--	--	--
MMI Maxi	$250 x Index	422,091	--	--	--	--
NASDAQ-100	$250 x Index	139,888	--	--	--	--
CHICAGO BOARD OF TRADE		70,553,897	67,667,952	62,811,523	48,206,790	49,085,763
Fresh Eggs	22,500 dz	--	--	--	18	13
Potatoes	80,000 lb	--	--	--	9	973
Live Hogs	30,000#	1,719,861	2,169,030	2,790,746	3,560,974	2,258,083
Pork Bellies, Fzn.	38,000 lb	1,457,386	1,908,045	2,403,277	2,811,674	1,997,697
Live Cattle	40,000#	4,437,327	3,553,270	4,248,152	4,440,992	4,282,293
Feeder Cattle	42,000 lb	455,881	316,985	537,173	603,769	620,885
Broilers	30,000 lb	--	--	--	2,118	20,048
Lumber	130,000 bd.ft.	581,548	753,568	731,003	516,619	635,934
Stud Lumber	100,000 bd.ft.	--	--	--	--	156
Plywood	152,064 sq.ft.	--	--	--	35	386
Gold	100 oz	7	8,841	994,132	1,533,466	2,518,435
Leaded Regular Gas	1,000 barrels	--	4,045	--	--	--
No. 2 Fuel Oil	1,000 barrels	--	4,601	--	--	--
T-Bills (90-day)	$1,000,000	2,413,338	3,292,817	3,789,864	6,598,848	5,631,290
Domestic CD (90-day)	$1,000,000	84,106	928,662	1,079,580	1,556,327	423,718
Eurodollar (3-month)	$1,000,000	8,900,528	4,192,952	891,066	323,619	15,171
British Pound	25,000	2,799,024	1,444,492	1,614,993	1,321,701	1,491,102
Canadian Dollar	100,000	468,996	345,875	558,741	1,078,467	475,585
Deutsche Mark	125,000	6,449,384	5,508,308	2,423,508	1,792,901	1,654,891
Japanese Yen	12,500,000	2,415,094	2,334,764	3,442,262	1,762,246	960,598
Mexican Peso	1,000,000	12,737	15,364	40,308	65,036	18,905
Swiss Franc	125,000	4,758,159	4,129,881	3,766,130	2,653,332	1,518,767
Dutch Guilder	125,000	--	--	162	128	4
U.S. Silver Coins	$5,000	--	--	--	1	6
French Franc	250,000	9,335	8,388	26,348	16,474	2,080
S&P 500 Index	$500 x Index	15,055,955	12,363,592	8,101,697	2,935,532	--
S&P 100 Index	$200 x Index	1,662	166,202	390,902	--	--
S&P OTC 250	$500 x Index	94,919	--	--	--	--
CHICAGO MERCANTILE EX.		52,115,247	43,449,682	37,830,044	33,574,286	24,527,020

	CONTRACT UNIT	1985	1984	1983	1982	1981
Rice, Milled	120,000 lb	--	--	275	5,262	10,249
Rice, Rough	200,000 lb	9	2,978	11,964	11,253	11,478
Cotton	50,000 lb	--	--	1,004	8,388	9,271
Cotton Short Staple	50,000 lb	1,751	--	--	--	--
Soybeans	5,000 bu	--	--	197	1,998	4,997
Corn	5,000 bu	--	--	102	971	--
CHIC. RICE & COTTON EX.		1,760	2,978	13,542	27,872	35,995
Coffee "C"	37,500 lb	650,768	499,133	427,441	556,435	515,302
Sugar #11	112,000 lb	3,012,929	2,449,549	3,201,968	2,037,020	2,470,327
Sugar #12	112,000 lb	99,851	109,448	84,120	51,093	14,333
Sugar #14	112,000 lb	17,433	--	--	--	--
Cocoa	10 M tons	800,573	1,127,752	1,162,540	607,964	562,651
CPI-W	$1,000 x Index	1,324	--	--	--	--
COFFEE SUGAR & COCOA		4,582,878	4,185,882	4,876,069	3,252,512	3,562,613
Copper	25,000 lb	2,444,552	2,506,365	3,186,914	2,362,625	1,647,380
Zinc	60,000 lb	--	--	--	--	3
Silver	5,000 oz	4,821,206	6,742,508	6,432,982	2,868,639	1,240,720
Gold	100 oz	7,773,834	9,115,504	10,382,805	12,289,448	10,373,706
Aluminum	40,000 lb	77,063	82,661	11,896	--	--
T-Bills (90-day)	$1,000,000	--	--	--	--	1,052
T-Notes (2-year)	$100,000	--	--	--	--	30,188
COMMODITY EXCHANGE		15,116,655	18,447,038	20,014,597	17,520,712	13,293,049
Wheat (5,000 bu)	5,000 bu	735,447	956,668	942,971	964,815	1,181,884
Value Line Index	$500 x Index	1,204,659	910,956	724,979	528,743	--
Mini Value Line	$100 x Index	19,032	30,179	25,092	--	--
KANSAS CITY BD. OF TRD.		1,959,138	1,897,803	1,693,042	1,493,558	1,181,884
Wheat	1,000 bu	347,355	404,508	334,413	243,640	279,082
Corn	1,000 bu	456,661	604,992	629,678	274,324	513,953
Oats	1,000 bu	1,746	7,067	11,797	12,981	4,176
Soybeans	1,000 bu	843,231	1,301,916	1,171,294	527,411	849,169
Soybean Meal	20 tons	10,981	--	--	--	--
Live Cattle	20,000#	64,510	81,112	88,349	107,329	119,566
Live Hogs	15,000#	74,388	112,877	108,069	175,624	100,139
Refined Sugar	40,000 lb	--	24	3,306	24,000	--
Silver	1,000 oz	4,510	19,497	96,611	125,409	143,051
New York Silver	1,000 oz	57,886	12,611	30,833	3,810	--
Gold	33.2 oz	76	41,690	349,044	383,499	469,460
New York Gold	33.2 oz	31,467	19,285	--	--	--
Platinum	25 oz	1,368	213	--	--	--
Copper	12,500 lbs	4,043	492	--	--	--
T-Bonds	$50,000	297,033	251,300	267,259	419,277	109,344
T-Bills	$500,000	36,904	30,486	37,755	100,417	--
British Pound	12,500	21,239	8,901	884	--	--
Swiss Franc	62,500	110,047	99,385	19,632	--	--
Deutschemark	62,500	85,439	67,507	6,607	--	--
Japanese Yen	6,250,000	32,912	34,677	10,835	--	--
Canadian Dollar	$50,000	3,370	3,315	171	--	--
MIDAMERICA COMMODITY EX.		2,485,166	3,101,855	3,166,537	2,397,721	2,588,540

	CONTRACT UNIT	1985	1984	1983	1982	1981
Wheat	5,000 bu	297,509	338,487	379,603	346,226	357,779
White Wheat	5,000 bu	3,402	2,245	--	--	--
Sunflower Seeds	100,000 lb	--	--	4	38	14,845
MINNEAPOLIS GRAIN EX.		300,911	340,732	379,607	346,264	372,624
Cotton #2	50,000 lb	636,492	1,137,141	1,550,117	1,255,792	1,415,213
Orange Jce, Fzn. Conc.	15,000 lb	190,758	317,364	124,267	207,070	387,182
Propane	100,000 gal	13,724	22,005	28,721	16,919	496
Dollar Index	$500 x Index	74,573	--	--	--	--
NY COTTON & CITRUS		915,547	1,476,510	1,703,105	1,479,781	1,802,891
T-Bills (90-day)	$1,000,000	--	--	--	--	9,766
T-Bonds	$100,000	--	--	18	4,464	162,942
Domestic CD (90-day)	$1,000,000	--	--	--	132	117,807
British Pound	25,000	--	--	--	--	37
Canadian Dollar	100,000	--	--	--	--	4
Deutsche Mark	125,000	--	--	--	--	3
Japanese Yen	12,500,000	--	--	--	--	13
Swiss Franc	125,000	--	--	--	--	13
NYSE Composite Index	$500 x Index	2,833,614	3,456,798	3,506,439	1,432,913	--
NYSE Financial Index	$1,000 x Index	--	--	3,828	13,933	--
NEW YORK FUTURES EX.		2,833,614	3,456,798	3,510,285	1,451,442	290,585
Palladium	100 oz	133,223	159,019	241,224	63,829	40,822
Platinum	50 oz	693,256	571,127	1,053,282	669,024	490,493
U.S. Silver Coins	$10,000	--	--	--	--	41
Imported Lean Beef	36,000 lb	--	--	--	7	7,976
Potatoes	50,000 lb	--	--	17,115	67,322	237,411
Potatoes(Cash Settlement)	100,000 lb	16,903	26,595	16,650	--	--
No. 2 Heating Oil, NY	1,000 bbl	2,207,733	2,091,546	1,868,322	1,745,526	995,306
No. 2 Heating Oil, Gulf	1,000 bbl	--	--	--	74	1,856
Leaded Reg. Gasoline, NY	1,000 bbl	667,172	653,630	406,843	104,082	7,300
Leaded Reg.Gasoline,Gulf	1,000 bbl	--	--	--	77	2
Unleaded Gasoline, NY	1,000 bbl	132,611	2,736	--	--	--
Crude Oil	1,000 bbl	3,980,867	1,840,342	323,153	--	--
NEW YORK MERCANTILE EX.		7,831,765	5,344,995	3,926,589	2,649,941	1,781,407
TOTAL FUTURES		158,696,578	149,372,275	139,924,940	112,400,879	98,522,371
PERCENT CHANGE		+ 6.24%	+ 6.75%	+ 24.49%	+14.09%	+7%

Source: Futures Industry Association

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Commodity Research Bureau
a Knight-Ridder Business Information Service
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Alcohol

Salient Statistics of Alcohol in the United States In Millions of Gallons[3]

	Ethyl Alcohol & Spirits		Denatured Alcohol[2]	Consumption			
Year	Production[5]	Stocks Dec. 31	Production	Total	For Fuel Use	Stocks Dec. 31	Production of Methanol (Synthetic)
1975	526.4	106.1	207.3	207.1	—	2.7	779.6
1976	498.8	85.3	225.3	225.6	—	3.2	940.1
1977	498.3	71.4	223.8	224.6	—	2.6	971.8
1978	506.7	71.2	227.7	228.8	—	2.7	970.4
1979	570.3	53.6	260.7	260.9	—	4.1	1,109.5
1980	643.2	72.0	301.2	281.5	14.5	10.1	1,077.3
1981	571.2	83.3	230.7	227.1	5.7	5.4	1,291.7
1982	601.1	95.0	284.9	277.9	41.9	6.6	1,137.7
1983	698.5	78.6	354.4	356.7	65.8	6.6	1,202.1
1984[1]	631.2	132.5	415.1	408.2	110.5	24.5	1,247.0
1985[4]	690	53	502	515	207	11	900

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[1] Preliminary. [2] At denaturing plants. [3] Ethyl alcohol in proof gallons; denatured alcohol in wine gallons. [4] Forecast. [5] Represents alcohol and spirits of 190° of proof and over. *Source: Alcohol and Tobacco Division*

T.1

U.S. Production of Ethyl Alcohol[1] & Spirits In Millions of Tax Gallons[2]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1972	38.0	43.8	46.1	43.7	52.4	56.7	64.7	57.7	64.0	59.3	51.5	53.4	621.3
1973	57.1	52.5	57.1	58.4	58.1	55.9	54.2	57.4	59.9	62.7	62.2	56.4	692.1
1974	49.9	49.9	45.3	55.5	52.8	40.8	45.3	52.4	59.5	61.0	48.6	54.8	618.2
1975	52.0	40.4	44.5	41.4	39.8	39.1	41.3	40.1	39.6	53.8	46.4	48.0	526.4
1976	41.6	36.2	44.0	39.3	36.0	37.0	45.5	46.0	43.3	39.3	42.8	47.7	498.8
1977	36.5	37.7	42.8	39.2	43.5	43.2	40.3	40.9	41.0	44.7	48.9	39.7	498.3
1978	35.8	41.1	50.4	42.2	31.3	48.7	42.5	45.4	50.5	40.3	38.0	40.7	506.7
1979	42.8	41.3	49.3	47.3	42.9	48.2	43.8	46.0	53.7	49.4	51.0	54.6	570.3
1980	57.4	52.7	55.3	55.2	54.2	45.7	52.8	46.4	57.3	64.6	47.9	53.7	643.2
1981	49.2	44.3	49.3	51.0	44.0	42.2	45.1	55.8	53.1	44.0	47.8	45.4	571.2
1982	42.9	39.8	48.2	37.6	41.9	52.6	51.9	44.3	53.3	61.9	61.7	65.0	601.1
1983	60.9	58.6	59.4	46.1	56.6	60.2	63.8	56.9	59.2	55.6	53.9	47.2	698.5
1984	49.3	45.9	54.1	58.2	50.9	49.7	48.4	48.3	51.8	60.5	50.4	63.7	631.2
1985[3]	64.1	45.0	60.5	55.6	56.2	63.6	58.4	55.4	59.4				

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[1] At industrial alcohol plants. [2] A "tax gallon" is the alcoholic equivalent of a U.S. gallon at 60 degrees Fahrenheit, containing 50% of ethyl alcohol by volume. [3] Preliminary. *Source: Internal Revenue Service*

T.3

Average Wholesale Price Index of Ethyl Alcohol, in N.Y. Dec. 1973 = 100[1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1972	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0
1973	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0
1974[1]	113.1	115.4	123.6	129.9	133.0	148.9	152.5	154.2	167.5	180.9	189.4	193.9	150.2
1975	201.6	206.3	219.2	219.2	217.8	218.0	216.8	214.6	215.8	217.1	218.2	216.6	215.1
1976	217.2	230.2	233.0	233.6	233.0	233.0	233.0	232.5	233.0	233.0	232.3	233.0	231.4
1977	231.6	233.0	232.3	232.3	232.3	233.0	238.8	244.9	243.6	243.1	242.5	243.9	237.6
1978	243.9	231.0	230.3	226.4	226.4	225.8	226.4	226.6	226.4	218.8	226.4	226.5	227.9
1979	234.8	239.2	239.2	243.6	248.1	249.4	260.1	265.4	277.6	284.3	291.5	292.2	260.5
1980	311.7	319.6	325.0	338.4	361.4	369.4	370.3	369.2	369.2	369.3	369.2	369.2	353.9
1981	369.2	369.2	370.3	370.3	368.5	368.5	387.3	387.3	387.3	396.8	392.0	383.3	379.2
1982	382.2	353.5	349.6	346.4	N.A.	338.7	341.1	345.2	336.6	335.5	335.9	N.A.	346.5
1983	336.4	335.2	334.4	333.3	333.2	333.2	337.2	337.1	337.0	337.0	340.4	340.4	336.2
1984	341.1	340.5	340.5	339.7	339.9	340.0	346.9	344.0	341.7	341.0	342.4	342.4	341.7
1985	339.3	334.2	326.2	326.0	326.0	326.0	325.7	328.1	327.3	324.6	325.3	324.9	327.8
1986	323.8												

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[1] Data prior to 1974 are for specially denatured No. 1, 190 proof, tank carlots, f.o.b. eastern works; freight prepared in CENTS PER GALLON. *Source: Bureau of Labor Statistics* (0614-0341.04)

T.2

Aluminum

Estimated worldwide production of aluminum in 1985 was 15 million metric tons (tonnes). The U.S. was the world's largest single producer, accounting for approximately 23 percent of the total. The U.S.S.R. was a distant second with 14 percent of the total followed by Canada with 8.3 percent. Worldwide capacity at the end of 1985 was about 18.5 million tonnes, of which the U.S. had 26.5 percent, the U.S.S.R. almost 14 percent, and Canada 7 percent. The world's reserve base for bauxite, the primary ingredient of aluminum, is said to be sufficient at current levels of consumption to satisfy the world's demand beyond the year 2000 and there are abundant non-bauxite resources that are technically usable for production of aluminum, but present processing costs make those resources uncompetitive with bauxite.

Domestic output of primary aluminum in 1985 amounted to about 3.5 million tonnes, down 14.6 percent from 1984. Similarly, production of secondary aluminum, which is made from scrap, was smaller than the year before, easing off about one-half of 1 percent. And imports, which had surged in 1984, fell back in 1985 by about 5 percent. As a result, year-end stocks were 7 percent smaller than at 1984's year-end and total employment fell from 23,800 in 1984 to 22,800 in 1985.

On the demand side of the equation, apparent consumption slid from roughly 5.3 million tonnes to about 4.9 million, a drop of 7.5 percent. But exports increased from 784 million tonnes in 1984 to 980 million in 1985, a jump of 33.5 percent. The average ingot price, as quoted by producers, remained steady at 81 cents per pound, but the domestic spot-market price plunged to 46 cents a pound from 61 cents a year before, a skid of nearly 25 percent.

For 1986, the estimate for production of primary aluminum in the U.S. is 3.1 million tonnes, some 400,000 tonnes fewer than in 1985. Although that rate of output represents only 60%–65% of domestic operating capacity, and although at the beginning of 1986 only 4 of the nation's 29 aluminum-reduction plants were operating at full capacity, the U.S. was projected to continue in 1986 as a net importer of aluminum. That condition is directly traceable to the high operating costs of U.S. plants, rather than rising demand relative to domestic supply. With respect to demand, only a slight decrease is forecast for 1986; apparent consumption is expected to be about 4.7 million tonnes, compared with 4.9 million in 1985.

Futures Markets

Aluminum futures are traded on the London Metal Exchange (LME), and also on the Commodity Exchange, Inc. in New York.

World Production of Aluminum In Thousands of Metric[3] Tons

Year	Australia	Austria	Canada	China	France	W. Germany	Hungary	Italy	Japan	Norway	Spain	Switzerland	Brazil	Un. Kingdom	United States	USSR	World Total
1977	273	101	1,073	385	440	818	79	287	1,310	686	233	88	184	386	4,539	1,810	15,189
1978	290	101	1,156	400	431	816	79	298	1,166	704	234	88	205	382	4,804	1,840	15,578
1979	297	102	904	400	436	817	79	297	1,114	732	286	91	263	396	5,023	1,930	16,044
1980	335	104	1,177	400	476	806	81	299	1,203	720	426	95	287	413	5,130	1,940	16,944
1981[3]	379	95	1,116	360	436	729	74	274	771	634	397	82	256	339	4,489	1,800	15,083
1982	381	94	1,065	380	390	723	74	233	351	636	367	75	298	241	3,274	1,875	13,455
1983[1]	478	94	1,091	380	361	743	74	196	256	715	358	76	401	252	3,353	2,000	13,945
1984[2]	758	96	1,228	380	342	750	74	230	287	761	381	79	412	286	4,099	2,100	15,521
1985[2]	850		1,250	380						760					3,499	2,100	15,000

[1] Preliminary. [2] Estimate. [3] Data prior to 1981 are in thousands of short tons. *Source: Bureau of Mines* 1 4

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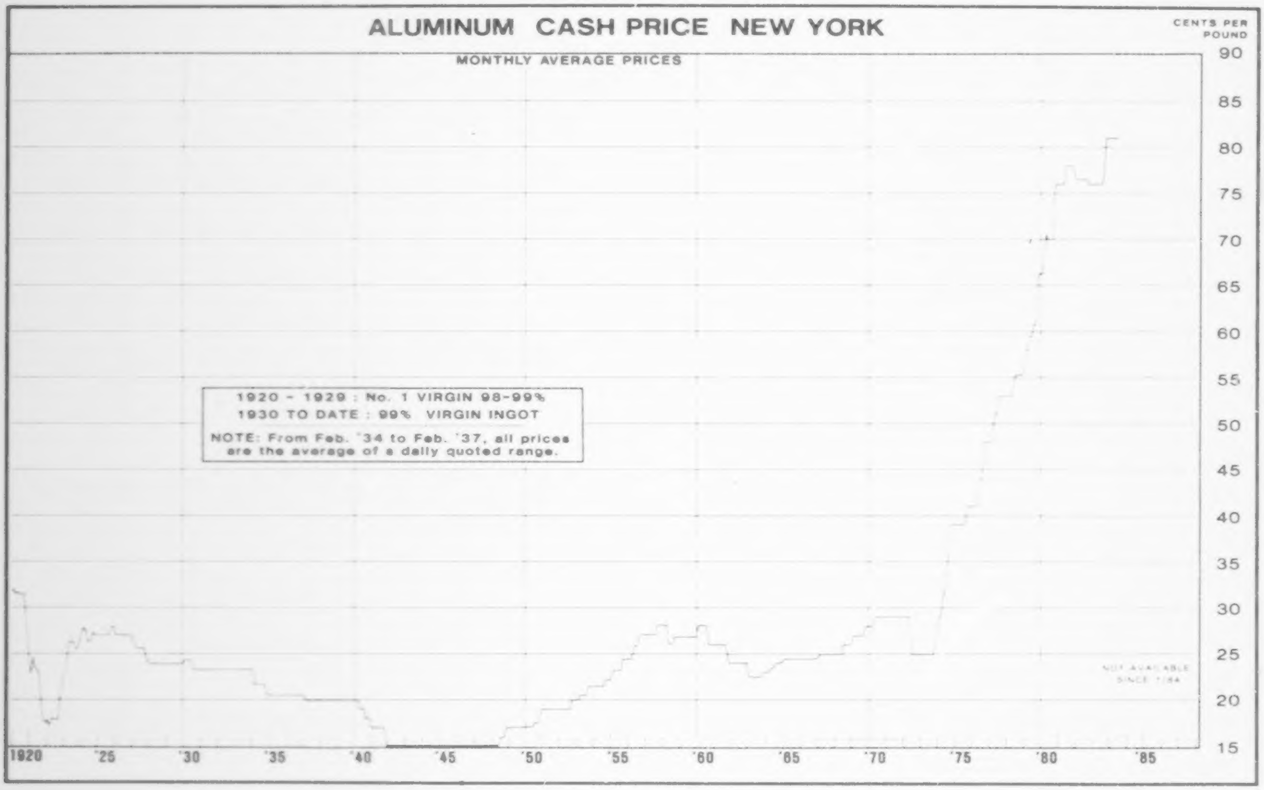


Salient Statistics of Aluminum in the U.S. In Thousands of Metric[6] Tons

Year	Net Import Reliance as a % of Apparent Consumption	Production: Primary	Production: Secondary	Primary Shipments[1]	Recovery from Scrap: Old	Recovery from Scrap: New	Total Apparent Consumption	Net Shipments[5] by Producers: Wrought Products: Plate, Sheet, Foil	Wrought Products: Rolled Structural Shapes[2]	Wrought Products: Extruded Shapes[3]	Wrought Products: All	Castings: Permanent Mold	Castings: Die	Castings: Sand	Castings: All	Total All Net Shipments
1977	7	4,539	1,271	6,566	531	1,074	5,492	3,423	467	1,198	5,210	220	652	113	1,004	6,214
1978	11	4,804	1,323	7,143	575	1,098	6,045	3,643	583	1,311	5,673	229	666	126	1,044	6,717
1979	4	5,023	1,401	6,922	614	1,163	5,888	3,592	618	1,263	5,615	241	635	143	1,040	6,655
1980	[7]	5,130	1,389	6,003	680	1,058	5,065	3,346	606	1,165	5,242	193	443	121	769	6,011
1981[8]	[7]	4,489	1,394	5,644	758	1,031	4,614	3,097	472	1,079	4,689	132	524	108	826	5,515
1982	7	3,274	1,466	5,090	782	884	4,370	2,749	391	871	4,094	108	480	81	728	4,823
1983	17	3,353	1,564	5,833	820	953	5,035	3,253	425	1,053	4,819	113	571	90	826	5,645
1984[4]	7	4,099	1,760	6,519	825	935	5,279	3,284	456	1,185	5,036	149	530	118	830	5,866
1985[6]	12	3,499	1,728		820	908	4,883									

[1] To Domestic Industry [2] Also rod, bar & wire. [3] Also rod, bar, tube, blooms & tubing. [4] Preliminary [5] Consists of total shipments less shipments to other mills for further fabrication. [6] Estimate. [7] Net exports. [8] Data prior to 1981 are in thousands of short tons. *Source: U.S. Bureau of Mines*

T.8

U.S. Supply and Distribution of Aluminum In Thousands of Short Tons

Year	Apparent Consumption	Production: Primary	Production: From Old Scrap	Imports	Exports	Inventories (Dec. 31): Private	Inventories (Dec. 31): Government	Year	Apparent Consumption	Production: Primary	Production: From Old Scrap	Imports	Exports	Inventories (Dec. 31): Private	Inventories (Dec. 31): Government
1980	5,065	5,130	680	713	1,483	2,538	2	1983	5,541	3,696	904	1,203	855	2,497	2
1981	5,087	4,948	836	935	867	3,303	2	1984[1]	5,819	4,518	909	1,628	809	2,924	2
1982	4,828	3,609	862	968	824	3,090	2	1985[2]	5,527	3,960	745	1,668	1,008	2,675	2

[1] Preliminary [2] Estimate *Source: U.S. Bureau of Mines*

T.8A

ALUMINUM

High, Low & Closing Prices of December Aluminum Futures in New York In Cents Per Pound

Year of Delivery	Yr. Prior to Delivery Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Life of Delivery Range
1984 High	—	86.15	81.75	79.10	76.85	71.95	67.35	65.90	59.65	55.50	48.90	53.45	55.30	51.40	86.40
Low	—	80.15	77.75	73.65	71.80	66.45	61.95	60.00	53.95	49.85	45.30	44.70	49.30	47.25	44.70
Close	—	81.45	78.85	73.95	72.60	66.55	65.00	60.55	54.10	49.95	47.10	50.90	49.30	47.25	—
1985 High	61.30	57.10	54.60	54.15	53.70	53.35	52.30	49.30	48.20	47.30	45.50	45.70	45.25	53.25	85.70
Low	57.15	51.10	50.45	51.70	51.75	50.60	46.85	44.90	45.05	45.45	43.05	41.80	41.90	44.05	41.80
Close	54.95	51.10	53.20	52.70	52.70	50.60	48.85	45.45	46.00	45.55	44.30	41.90	44.40	51.25	—
1986 High	49.50	57.15	59.35	58.60											
Low	46.30	48.80	54.60	54.90											
Close	48.90	55.50	56.20	57.90											

Source: Commodity Exchange, Inc. (Comex)—N.Y. T.11A

Month End Open Interest of Aluminum Futures at New York In Contracts

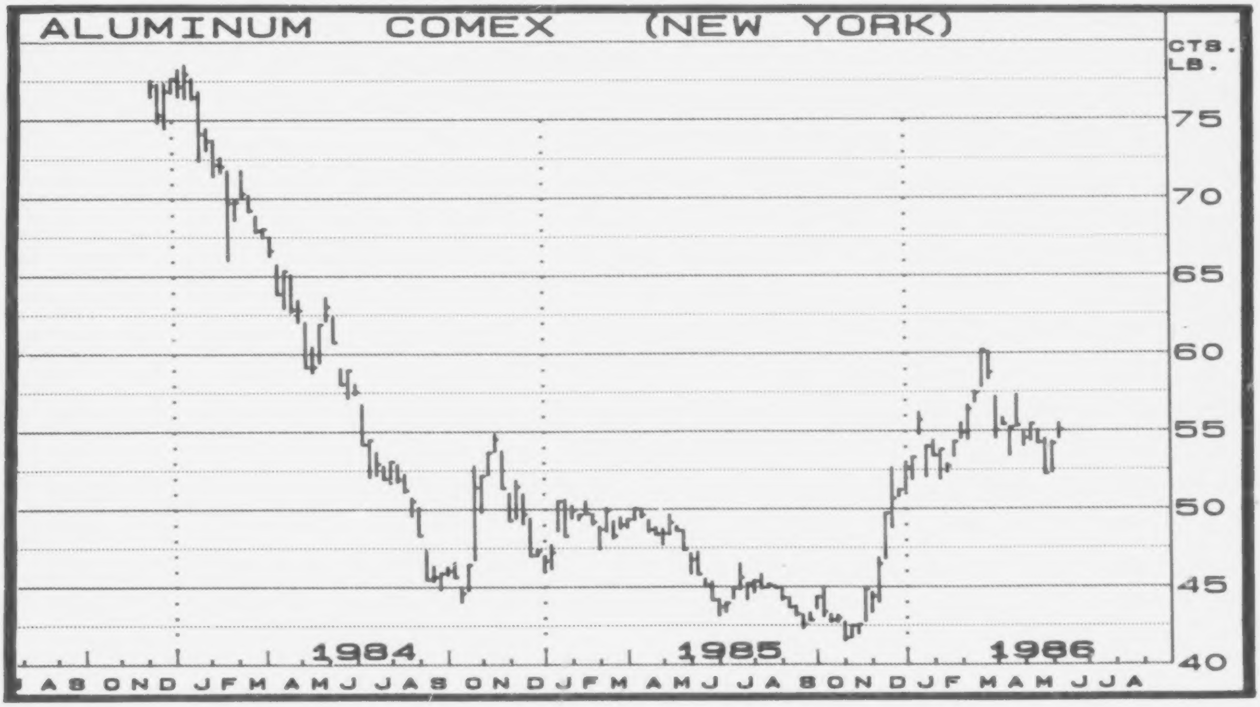
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1983	Futures Trading Began Dec. 8, 1983											2,977
1984	3,304	3,006	3,262	2,278	2,678	1,868	3,141	3,017	2,974	4,058	5,269	4,220
1985	4,102	3,727	2,710	2,460	2,264	1,803	1,686	1,507	1,749	1,873	1,687	2,044
1986	2,386	2,179										

Source: Commodity Exchange, Inc. (Comex)—N.Y. T.11B

Volume of Trading of Aluminum Futures at New York In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1983	Futures Trading Began Dec. 8, 1983											11,896	11,896
1984	8,599	7,743	5,059	5,997	3,893	3,802	5,291	8,567	4,231	9,190	14,086	6,203	82,661
1985	10,788	9,222	4,935	7,353	4,935	6,609	4,159	9,052	3,342	3,166	6,934	6,568	77,063
1986	8,409	9,600											

Source: Commodity Exchange, Inc. (Comex)—N.Y. T.11C



Average Price of Cast Aluminum Scrap (Crank Cases)[1] in New York In Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1982	20.50	20.50	19.85	19.50	19.25	16.32	16.00	16.00	16.00	16.00	14.95	14.50	17.45
1983	15.12	17.50	19.50	19.50	23.50	25.50	27.65	31.80	33.50	33.50	33.50	33.50	26.17
1984	34.83	35.50	36.59	37.50	35.64	32.98	30.50	29.11	25.55	23.07	22.50	23.67	30.62
1985	25.50	25.50	25.50	25.50	23.23	21.50	21.40	20.50	20.50	20.50	20.50	22.55	22.55
1986	21.23	22.50											

[1] Dealers' buying prices. *Source: American Metal Market*

T.12

U.S. Production of Primary Aluminum (Domestic & Foreign Ores) In Thousands of Metric Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total[1]
1982	318	282	305	289	291	272	269	260	246	249	241	249	3,274
1983	253	223	248	245	265	261	284	297	299	320	318	340	3,353
1984[2]	342	324	350	348	365	351	349	344	329	338	325	334	4,099
1985[2]	329	289	312	295	304	288	292	289	280				

[1] Final annual totals. [2] Preliminary. *Source: Bureau of Mines*

T.9

Aluminum Products (Ingot & Mill Products) Shipments[1] in the U.S. In Million Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1981	1,137	1,098	1,318	1,226	1,223	1,291	1,076	1,159	1,110	1,083	896	959	13,575
1982	862	946	1,074	1,014	972	1,127	881	1,114	1,016	980	959	1,099	12,039
1983	971	972	1,185	1,054	1,224	1,205	1,077	1,212	1,202	1,103	1,141	1,275	13,622
1984[2]	1,100	1,263	1,384	1,129	1,297	1,288	1,107	1,236	1,128	1,282	1,140	1,207	14,561
1985[2]	1,132	1,097	1,254	1,209	1,287	1,191	1,195	1,222	1,258	1,257			

[1] Mill products & pig & ingot (net shipments). [2] Preliminary. *Source: Bureau of the Census*

T.10

U.S. Aluminum Inventories, Total (Ingot, Mill Prod. & Scrap) In Million Pounds

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1980	5,125	5,071	5,021	4,950	4,912	4,955	5,032	5,084	5,037	4,966	4,966	5,082
1981	5,076	5,221	5,323	5,408	5,495	5,600	5,632	5,964	6,086	6,187	6,276	6,524
1982	6,607	6,644	6,722	6,639	6,665	6,664	6,557	6,607	6,490	6,415	6,412	6,373
1983	6,180	6,140	6,075	5,870	5,723	5,558	5,418	5,451	5,353	5,236	5,273	5,191
1984[1]	4,994	5,200	5,225	5,295	5,435	5,579	5,618	5,775	5,794	5,881	5,889	5,922
1985[1]	5,850	5,759	5,678	5,657	5,600	5,647	5,596	5,575	5,488	5,438	5,338	

[1] Preliminary. *Source: Bureau of Mines*

T.5

Aluminum Exports (Metal & Alloys, Crude) from the U.S. In Thousands of Metric Tons[1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	39.6	37.7	52.8	52.3	52.3	61.3	51.3	97.6	98.9	70.1	55.0	46.1	714.9
1981	59.4	23.2	32.9	48.6	29.3	23.5	29.3	16.8	9.2	24.1	23.1	24.6	344.2
1982	22.1	18.8	46.0	26.6	19.9	48.5	24.2	42.6	23.6	59.5	42.1	27.3	401.2
1983[1]	50.9	12.2	14.0	46.4	8.2	14.9	37.1	33.2	44.5	27.4	50.8	24.1	360.7
1984	24.5	20.1	19.9	7.6	23.4	24.0	22.1	37.5	23.9	17.9	32.9	32.3	286.2
1985	43.9	34.6	24.9	31.0	32.8	58.8	41.8	27.4	29.6	21.4	20.5		

[1] Data prior to 1983 are in thousands of short tons. *Source: Bureau of the Census*

T.7

Aluminum General Imports (Metal & Alloys, Crude) into the U.S. In Thousands of Metric Tons[1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	61.8	45.3	47.8	45.4	42.1	51.7	40.3	40.7	43.0	41.4	29.9	78.3	580.8
1981	55.8	55.7	75.6	50.2	67.8	55.9	63.9	67.0	60.5	55.2	41.5	49.3	710.7
1982	38.5	65.9	61.7	61.0	51.0	66.5	42.2	78.2	52.8	52.7	60.1	47.8	679.4
1983[1]	48.2	42.6	33.2	66.9	84.6	82.9	72.1	65.7	56.6	58.2	63.6	40.3	714.9
1984	70.9	94.9	114.3	68.8	108.8	73.9	66.8	68.0	89.9	93.0	68.6	57.4	975.3
1985	75.6	62.7	88.9	73.2	80.4	84.8	75.9	80.4	103.4	95.0	76.7		

[1] Data prior to 1983 are in thousands of short tons. *Source: Bureau of the Census*

T.6

Antimony

Worldwide production of antimony in 1985 was roughly 59,000 tons, practically unchanged from 1984. Nearly half of that output, or more than 27,000 tons, originated in centrally planned economies, notably the U.S.S.R. and the People's Republic of China. The reserve base worldwide is estimated at about 5.2 million tons, nearly 60 percent of it in the centrally planned economies.

Production figures for the U.S. in 1985 have been withheld to avoid disclosure of proprietary data. There are but 9 companies, operating a total of 10 plants, engaged in producing primary antimony metal and oxide. The estimated value of total domestic output in 1985 was $52 million. The volume of refined output, from primary and secondary plants combined, was 30,000 tons. Domestic supply was further reinforced by 20,000 tons of imports and 928 tons shipped as excess from governmental stockpiles.

Consumption of primary antimony—principally, as a flame retardant and as a hardening agent in lead-acid batteries—amounted to 13,000 tons. Exports of metals, alloys and oxide came to 1,200 tons for the year. In view of the large shortfall of demand, compared with supply, it was no surprise that the average price per pound in 1985 was sharply lower than in 1984: $1.30, as against $1.512, a drop of 14 percent. Even so, year-end stocks in 1985 were about the same as in 1984, as was plant employment which held steady at 130,000.

Apparent consumption of antimony in the U.S. during 1986 was estimated at 34,000 tons, little different from estimated apparent consumption in 1985. Domestic demand was projected to grow, however, through 1990 at an average annual rate of of 1.1 percent. The bulk of total domestic consumption will be satisfied through imports.

World Mine Production of Antimony (Content of Ore) In Short Tons

Year	Australia	Bolivia	Austria	China[1]	Czechoslovakia	Italy	Mexico[2]	Morocco	Peru[5]	Turkey	South Africa	United States	USSR	Yugoslavia[4]	World Total[1]
1982	1,263	15,408	735	13,200	550	374	1,725	998	814	1,189	10,070	503	9,900	1,672	60,933
1983[3]	582	10,969	726	16,500	550	0	2,777	500	786	926	6,947	838	10,000	1,047	55,526
1984[1]	550	10,700	720	16,500	550	440	2,200	550	770	900	9,900	557	10,300	990	58,857
1985[1]		10,000					2,000				9,000			1,500	58,600

[1] Estimate. [2] Includes antimony content of miscellaneous smelter products. [3] Preliminary. [4] Metal. [5] Recoverable. *Source: Bureau of Mines*

T.13

Salient Statistics of Antimony in the United States In Short Tons

Year	Net Import Reliance as a % of Apparent Consumption	Production: Shipments of Mine	Production: Primary[2] Mine	Production: Primary[2] Smelter	Production: Secondary (Alloys)[2]	Imports[5]: Ore Gross Weight	Imports[5]: Ore Sb Content	Imports[5]: Metal Gross Weight	Exports[3]	Industry Stocks, Dec. 31[2]: Ores & Concentrates	Industry Stocks, Dec. 31[2]: Metallic	Industry Stocks, Dec. 31[2]: Oxide	Industry Stocks, Dec. 31[2]: Sulfide	Industry Stocks, Dec. 31[2]: Residues & Slag	Industry Stocks, Dec. 31[2]: Total[6]	Prod. of Antimonial Lead[2]
1982	50	365	503	12,282	16,596	5,607	2,769	1,899	830	532	556	4,711	24	150	5,973	N.A.
1983	54	878	838	14,557	14,204	6,305	2,770	1,282	304	446	805	2,614	19	51	3,935	N.A.
1984[1]	58	711	557	16,979	14,806	9,891	4,299	3,898	511	1,304	603	4,926	14	69	6,916	N.A.
1985[4]				16,504	20,694		6,638	5,129	362	1,098	830	3,579			5,525	

[1] Preliminary. [2] Antimony content. [3] Antimony ore, metal & compounds. [4] Estimate. [5] Imports for consumption. [6] Including primary antimony residues & slag. *Source: Bureau of Mines*

T.15

Industrial Consumption of Primary Antimony in the United States In Short Tons (Antimony Content)

Year	Metal Products: Ammunition	Metal Products: Antimonial Lead	Metal Products: Sheet & Pipe	Metal Products: Bearing Metal & Bearings	Metal Products: Cable Covering	Metal Products: Solder	Metal Products: Type Metal	Metal Products: Total All Metal Products	Flame Retardant	Non-Metal Products: Ammun. primers	Non-Metal Products: Ceramics & Glass	Non-Metal Products: Rubber Pdt's.	Non-Metal Products: Pigments	Non-Metal Products: Plastics	Non-Metal Products: Total	Grand Total
1982	294	793	26	143	25	124	11	1,493	4,833	20	1,358	221	330	1,050	3,088	9,414
1983	175	926	43	143	31	154	10	1,562	6,204	16	1,252	70	198	993	2,652	10,418
1984[1]	N.A.	845	80	169	N.A.	228	31	1,701	7,959	21	1,292	21	178	1,108	2,787	12,447
1985[2]		449		79		162		1,136	5,155	20	1,043		126	750	2,047	8,338

[1] Preliminary. [2] Estimated coverage based on 77% of the industry. *Source: Bureau of Mines*

T.16

Antimony Imported (for Consumption) into the U.S. and Price Ranges

Year	Imported for Consumption: Antimony Ore Value Ths. $	Imported for Consumption: Needle or Liquated — Antimony — Gross Weight Sh. Tons	Imported for Consumption: Needle or Liquated — Antimony — Value $ Ths	Imported for Consumption: Antimony Metal Short Tons	Imported for Consumption: Antimony Metal Value $Ths	Imported for Consumption: — Antimony Oxide — Short Tons	Imported for Consumption: — Antimony Oxide — Value $ Ths.	¢ Lb.: Foreign Metal (Duty Paid Delivery New York)	¢ Lb.: Antimony Trioxide	¢ Lb.: Metal[2]	¢ Lb.: Domestic (Based on Antimony in Alloy)
1982	4,289	88	188	1,900	3,893	10,433	18,045	93–124	120–180	107.2	200
1983	2,335	47	58	1,282	1,987	10,604	13,318	78–135	100–120	91.3	200
1984[1]	6,798	72	157	3,898	8,037	17,884	26,348	120–177	116–180	151.2	200
1985[1]				5,129						131.1	

[1] Preliminary. [2] N.Y. Dealer Price, 99.5% to 99.6%, C.I.F. U.S. ports. *Source: Bureau of Mines*

T.17

Apples

World Production of Apples (Dessert & Cooking) In Thousands of Metric Tons

Year	Mexico	Argentina	Australia	Spain	Belg-Lux	Canada	France	West Germany	Italy	Japan	Netherlands	Turkey	United Kingdom	United States[2]	Yugoslavia	World Total
1973		233	335	1,015	246	375	2,060	2,016	2,050	963	460	850	456	2,830	448	15,719
1974	213	786	368	1,038	209	406	1,610	1,281	1,886	850	385	950	340	2,964	370	14,895
1975	230	608	368	1,091	268	460	2,125	2,035	2,127	989	430	900	338	3,415	370	16,910
1976	329	576	275	1,008	241	409	1,598	1,487	2,143	879	380	1,000	388	2,936	483	15,501
1977	297	820	301	672	120	411	1,186	1,176	1,828	959	315	900	234	3,057	381	13,934
1978	313	810	258	1,015	273	452	1,768	1,783	1,874	844	510	1,000	342	3,446	381	16,589
1979	338	972	345	1,097	322	435	1,769	1,951	2,023	853	450	1,350	334	3,694	428	16,605
1980	282	908	345	859	330	553	1,802	1,880	1,966	960	450	1,100	321	4,005	483	17,179
1981	280	804	330	1,007	134	419	1,468	773	1,773	846	260		227	3,517	508	14,308
1982	394	817	301	891	270	478	1,978	2,637	2,642	924	440		340	3,684	746	18,418
1983[1]	302	934	281	1,047	203	485	1,573	1,313	2,056	1,048	364		293	3,798	557	16,212
1984[3]	380	950	320	1,049	230	455	1,930	1,799	2,075	986	380		312	3,758	607	17,354
1985														3,542		

[1] Preliminary. [2] Commercial crop. [3] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T 18

Salient Statistics of Apples[1] in the United States

Year	Production		Western Avg. Auction Price N.Y. $ Per Box		Utilization of Quantities Sold						Avg Farm Price ¢ Per Lb.	Farm ized Million $	Foreign Trade[4]			Fresh Per Capita Consumption Lbs.
						Processed[5]							Domestic Exports		Imports	
	Total	Utilized	Golden Delicious	Red Rome	Fresh	Canned	Dried	Frozen	Juice & Cider	Other[3]			Fresh	Dried[5]	Fresh & Dried[5]	
	Millions of Pounds												Metric Tons[6]			
1973	6,265	6,252	7.76	5.00	3,539	1,255	248	259	822	128	8.80	549.0	3.7	.3	1.9	16.1
1974	6,580	6,530	8.81	7.04	3,691	1,226	197	182	1,031	204	8.40	551.6	4.9	.2	1.6	16.5
1975	7,530	7,103	8.22	5.16	4,357	1,027	230	207	1,192	91	6.50	460.9	4.7	.2	2.6	19.1
1976	6,472	6,467	7.57	3.67	3,916	920	229	220	1,109	73	9.10	586.5	123.7	4.6	55.7	17.1
1977	6,740	6,710	8.76	7.28	3,860	1,076	226	161	1,267	121	10.60	708.6	142.4	8.2	63.6	16.9
1978	7,597	7,544	9.77	6.00	4,210	1,224	221	207	1,495	186	10.40	781.4	154.8	7.3	78.5	17.5
1979	8,126	8,118			4,289	1,337	256	137	1,954	130	10.90	883.4	237.3	5.5	71.2	17.6
1980	8,818	8,810			4,934	1,202	195	168	2,137	165	8.70	762.5	311.3	7.6	76.8	19.1
1981	7,740	7,706			4,442	1,002	190	173	1,798	87	11.10	853.0	269.2	8.3	128.3	16.8
1982	8,122	8,122			4,537	1,249	210	191	1,808	116	10.00	812.2	261.8	16.1	98.7	17.9
1983	8,373	8,373			4,620	1,201	283	170	1,984	95	10.50	879.2	——222.4——			18.4
1984[2]	8,286	8,271			4,677	1,180	304	178	1,816	96	11.20	926.4	——209.4——			18.1
1985[2]	7,809										10.90	850.2				

[1] Commercial crop. [2] Preliminary. [3] Mostly crushed for vinegar, jam, etc. [4] Year beginning July. [5] Fresh weight basis. [6] Prior to 1976 data is in millions of bushels. *Source: Statistical Reporting Service, U.S.D.A.* T 19

Producer Price Index of Apples (Delicious) in the United States 1967 = 100[1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1973	7.300	6.490	7.773	8.687	8.333	10.387	N.A.	N.A.	N.A.	6.869	8.125	7.868	7.981
1974	7.110	7.370	6.066	6.650	8.500	N.A.	N.A.	N.A.	8.213	9.793	N.A.	8.320	7.753
1975	8.193	9.500	10.000	9.580	11.783	14.081	N.A.	N.A.	N.A.	7.261	7.272	7.440	9.457
1976	7.217	8.437	8.250	8.750	7.752	8.070	N.A.	N.A.	N.A.	9.610	9.008	9.785	8.542
1977	N.A.	10.900	10.030	9.794	9.725	9.935	N.A.	N.A.	N.A.	9.960	9.000	8.020	9.417
1978	11.183	11.280	11.305	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	21.612	14.000	13.876
1979	13.500	14.000	14.000	14.500	13.500	13.750	N.A.	N.A.	N.A.	12.750	14.500	15.250	13.972
1980	15.750	15.667	16.750	16.750	16.750	19.000	N.A.	N.A.	N.A.	12.500	12.000	12.000	15.240
1981	12.000	12.250	13.500	12.583	12.875	13.500	N.A.	N.A.	N.A.	16.000	15.125	15.500	13.704
1982	15.125	16.000	16.833	15.000	N.A.	N.A.	N.A.	N.A.	N.A.	13.500	13.000	14.000	14.780
1983[1]	214.5	222.8	216.6	207.3	214.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	293.3	219.2
1984	241.6	272.3	268.2	268.2	268.2	N.A.	N.A.	N.A.	N.A.	272.3	255.8	259.9	263.3
1985[2]	243.4	280.6	272.3	270.2	255.8	N.A.	N.A.	N.A.	230.0	304.6	275.8	281.1	269.0
1986[2]	288.1												

[1] Prior to 1983, data is in *dollar per tray ctn.* [2] Preliminary. *Source: Bureau of Labor Statistics* (0111-0215.99) T 20

Arsenic

World refinery production of arsenic trioxide increased in 1985, according to a preliminary estimate of the U.S. Bureau of Mines. The increase was accounted for primarily because of a sizable increase in France, one of the major producers, and the inclusion of Philippine data.

U.S. production of arsenic trioxide (recovered as a byproduct of the smelting of high-arsenic copper concentrates and arsenic-bearing residues) is small. Only one domestic smelter, ASARCO's Tacoma, Washington copper smelter, has facilities for recovering arsenic as arsenic trioxide, and copper smelting operations at this facility have been terminated, reportedly because of the high cost of bringing the smelter into compliance with environmental requirements. However, owing to expanding capacity in Chile, the Philippines and France, and to the availability of Chinese material, the Tacoma plant closure was not expected to create supply shortages of arsenic trioxide, according to the U.S. Bureau of Mines.

The U.S. is the world's largest consumer of arsenicals, using about 50 percent of estimated world production. Virtually all of domestic requirements are met by imports of arsenic trioxide. Major import sources in the 1981–1984 period were: Sweden—29 percent; Canada—29 percent; Mexico—22 percent; and France—8 percent. Imports of arsenic trioxide increased by an estimated 29 percent in 1985, while imports of arsenic compounds increased by 6 percent.

Domestic demand in 1985, as reflected by estimated imports, approached the peak demand of 1981. The largest increase in demand came from the wood preservative industry. Demand from the agricultural sector declined slightly in 1985 due to slightly lower cotton acreage. Cotton is the principal agricultural market for arsenical herbicides and desiccants. Estimated U.S. end use distribution of arsenic in 1985 was as follows: industrial chemicals (wood preservatives)—62 percent; agricultural chemicals—30 percent; glass—4 percent; non-ferrous alloys—3 percent; other uses 2 percent.

World Production of White Arsenic (Arsenic Trioxide) In Metric[4] Tons

Year	Portugal	Bolivia	Brazil	Canada	Chile	France	W. Germany	USSR	Japan	Mexico	Peru	Rep. of Korea	Sweden	Namibia[3]	World Total
1974	290		20	—	—	9,000	401	8,050	213	10,477	2,175	18	16,190	7,319	54,153
1975	282		14	—	—	7,300	350	8,100	66	6,747	1,461	110	12,884	7,345	44,659
1976	306		0		—	8,023	400	8,200	66	6,062	879	1,028	7,411	5,646	38,021
1977	245		—		—	6,661	400	8,300	131	6,332	1,507	713	6,613	2,882	33,784
1978	279				—	6,500	400	8,400	100	6,884	1,457	604	6,700	2,647	33,971
1979[4]	345				—	5,550	—	7,700	182	6,537	1,415	590	5,080	2,221	29,620
1980	200	81			—	5,300	360	7,700	284	6,932	2,475	N.A.	6,500	1,288	31,199
1981	196	127	—	—	—	5,200	360	7,750	95	6,517	2,164	170	6,900	1,370	30,870
1982	200	261	—	—	—	5,100	360	7,800	100	4,740	1,663	306	7,200	1,895	29,625
1983[1]	190	107	—	—	—	4,700	360	7,900	300	4,557	1,110	560	5,300	1,126	26,210
1984[2]	180	130	—	1,000	3,500	5,000	360	8,000	500	4,500	1,100	N.A.	5,900	2,504	32,674
1985[2]					3,500	6,000		8,000		4,500	1,000		6,000	2,500	39,000

[1] Preliminary. [2] Estimate. [3] Output of Tsumeb Corp. Ltd. only. [4] Data Prior to 1979 are in Short Tons. *Source: Bureau of Mines* T.21

Salient Statistics of White Arsenic in the U.S. In Metric[5] Tons

	Imports For Consumption					Trioxide Mexican 99.13% As_2O_3 ¢ lb.[3]	Value of Imports Thous. $	Trioxide Domestic[4] 95% As_2O_3 — ¢ lb. 12/31 —	Metal Domestic 99% As	Imports of Arsenic Trioxide from							Exports (compounds) Gross Weight
Year	Trioxide (As_2O_3)	Metallic Arsenic	Arsenic Acid	Sulfide	Arsenic Compounds					Peru	Canada	France	Mexico	South Africa	Sweden	Bel-Lux	
1974	13,742	707			43		2,449			24	—	480	6,185	145	6,889		
1975	12,013	483			77	16.5	4,426	13.1	160	66	—	595	3,174	970	7,172		
1976	4,262	288			355	17	1,528	13.1	175	—	—	462	3,793	—	3		
1977	5,981	357	382	—	1,109	18	1,962	13.1	190	—	22	1,352	3,089	—	1,323		
1978	10,306	369	565	—	473	27	5,918	23¼	190	—	136	5,077	2,603	—	2,281	189	
1979	12,325	405	176	39	1	30	7,728	24¼	190	477	277	3,242	3,125	—	5,014	184	969
1980	12,528	266	271	11	1	46	9,190	31¾	300	—	486	2,780	3,720		4,770	388	1,518
1981[5]	17,199	294	1,511	—	4	78	17,742	40	275	50	5,581	749	3,566	17	4,902	1,251	523
1982	14,599	136	699	18	362	59	18,205	40	245	—	3,352	1,992	2,276	—	4,192	1,030	2,658
1983	10,186	243	2,385	1,127	26	45	13,920	33	225	—	2,525	667	2,531	17	3,430	946	85
1984[2]	13,985	304	2,506	20	35	42	14,581	33	210		4,767	1,261	3,115	—	3,914	843	76
1985[1]	18,000					42		33	210								200

[1] Estimate. [2] Preliminary. [3] F.O.B. Laredo, TX. [4] F.O.B. Tacoma, Wash. [5] Data Prior to 1981 are in Short Tons. *Source: Bureau of Mines* T.22

Barley

In February 1986, USDA estimated world production of barley in the October–September 1985/86 crop year at 177.8 million tonnes, up from 172.5 produced in 1984/85. U.S. production remained nearly unchanged at 12.8 million tonnes, and increases in USSR and Canadian production were mainly responsible for the rise in production.

Utilization in 1985/86 was expected to rise by nearly 10 million tonnes to 174.4 million, with a nearly 6-million-tonne rebound increase in USSR use expected. In 1984/85, Soviet use and production of barley fell sharply from 1983/84 levels because of weather-related crop problems.

Total world exports in 1985/86 were expected at 19.1 million tonnes, about unchanged from the previous year. A 2.0-million-tonne increase in Canadian exports to 4.5 million offset slight declines in exports from Australia, the EEC and the U.S. Canadian exports were expected to rise in 1985/86 because of an abundant supply of feed-quality barley.

World ending stocks of barley were expected to rise to 25.1 million tonnes in 1985/86 from 22.2 million in 1984/85.

U.S. barley production in 1985/86 was estimated at 589 million bushels, down 2 percent from last year's record production. With carryin stocks at 247 million bushels and imports estimated at 7 million, total supply rose 5 percent from 1984/85 to 844 million in 1984/85.

Domestic use was expected to hold steady with 1984/85 levels, and exports to decline from 77 million bushels to 25 million. Thus, total use was expected to drop about 10 percent to 495 million bushels. Ending stocks were estimated at 349 million bushels, up from 247 million in 1984/85.

On January 1, 1986, U.S. barley stocks in all positions totaled 534 million bushels, up 18 percent from stocks a year ago. About 68 percent of those stocks where located on-farm, large year-over-year increases were seen in North Dakota and Minnesota, where 53 percent of barley stocks were located.

USDA's 1986 prospective plantings report as of March 1 projected barley acreage at 12.9 million acres, down 2 percent from acreage planted in 1985.

The average farm price to U.S. producers for the 1985/86 crop year was estimated by USDA in March at $1.90 to $2.10 per bushel. The average farm price in 1984/85 was $2.26.

U.S. Government Price Support

The barley loan rate was $2.08 for the 1985/86 marketing year, and the target price remains at $2.60. The deficiency payment rate was the maximum 52 cents per bushel. For the 1986 crop, the loan rate is at $1.56, and the target price remains at $2.60. USDA's projected deficiency payment is 95 cents per bushel with payments subject to a 4.3 percent reduction under the Gramm-Rudman-Hollings Act.

Futures Market

Feed barley futures are traded on the Winnipeg Commodity Exchange.

World Barley Supply and Demand In Millions of Metric Tons

	Exports						Imports			Utilization				Stocks[2]		
Crop Year	Australia	Canada	EC-10	Total Non-U.S.	U.S.	Total Exports	U.S.S.R.	Total Imports	Production	West Europe	Non-U.S.	U.S.	Total Utilization	Non-U.S.	U.S.	Total Stocks
1979–80	2.9	3.0	3.2	10.0	1.2	11.3	2.3	11.3	160.2	51.4	157.6	8.2	165.8	13.8	4.2	18.0
1980–81	1.5	4.0	4.6	12.4	1.8	14.2	4.0	14.2	164.0	52.0	157.2	7.6	164.8	14.1	3.0	17.1
1981–82	1.7	5.5	3.5	12.0	2.0	14.1	3.6	14.1	157.0	48.3	149.1	8.1	157.2	13.7	3.2	17.0
1982–83	.6	6.1	3.9	12.5	1.0	13.4	2.2	13.4	164.7	49.5	153.0	8.9	162.0	15.0	4.7	19.7
1983–84	3.7	4.2	3.8	13.3	2.1	15.4	.5	15.4	168.9	49.1	164.5	9.8	174.3	10.2	4.1	14.3
1984–85	5.3	2.5	7.2	17.6	1.2	18.8	4.7	18.8	172.5	50.1	154.3	10.3	164.6	16.8	5.4	22.2
1985–86[1]	4.5	4.5	6.5	18.4	.8	19.1	2.4	19.1	176.9	50.2	164.7	10.2	175.0	16.6	7.6	24.2

[1] Preliminary. [2] End of Crop Year Season. *Source: Foreign Agricultural Service, U.S.D.A.* T.29A

World Production of Barley In Thousands of Metric Tons

Crop Years	China	United States	Australia	Canada	Rep. of Korea	Denmark	Morocco	France	India	Japan	USSR	W. Germany	Spain	Turkey	United King.	World Total
1978–9	7,000	9,776	4,006	10,387	1,348	6,301	2,326	11,321	2,311	326	62,077	8,608	8,608	4,750	9,850	182,600
1979–0	7,500	8,334	3,703	8,460	1,508	6,657	1,886	11.196	2,142	406	47,900	8,184	6,252	5,000	9,609	160,200
1980–1	7,600	7,859	2,682	11,259	859	6,044	2,210	11,758	1,624	375	43,400	8,826	8,705	5,300	10,326	164,000
1981–2	7,500	10,436	3,450	13,724	749	6,044	1,039	10,231	2,293	383	37,500	8,687	4,757	5,900	10,230	157,000
1982–3	6,900	11,233	1,939	13,966	780	6,387	2,334	10,190	2,012	390	41,000	9,460	4,900	6,000	10,884	164,700
1983–4[1]	6,900	11,081	4,890	10,209							54,000					168,900
1984–5[2]	5,600	13,046	5,561	10,296							42,100					172,500
1985–6[2]	5,200	12,828	5,000	12,250							48,200					176,900

[1] Preliminary. [2] Estimated. *Source: Foreign Agricultural Service, U.S.D.A.* T.23

BARLEY

U.S. Barley Acreage and Prices

Year Beginning June 1	Acreage (Million Acres)				Yield per Harvested Acre	Seasonal Prices				Govt. Price Support Operations			
	National Program	Set-aside	Planted	Harvested for Grain		Received by Farmers[1]	Minneapolis or Better		Portland No. 2 Western	National Avg Loan Rate	Support or Target Price	Placed Under Loan (Mil Bu.)	Total Payments to Participants (Mil. $)
							Feed (No. 2)	Malting (No. 3)					
					In Bushels	Dollars per Bushel							
1978-9	7.5	.8	10.0	9.2	49.2	1.92	1.80	2.38	2.10	1.63	2.25	67.6	97[9]
1979-0	7.8	.7	8.1	7.5	50.9	2.29	2.16	2.87	2.69	1.71	2.40	30.0	22[8]
1980-1	8.7	—	8.3	7.3	49.7	2.84	2.60	3.64	3.34	1.83	2.55	31.2	31[7]
1981-2	10.2	—	9.6	9.0	52.4	2.44	2.21	3.06	2.87	1.95	2.60	60.4	63[8]
1982-3	—	.4	9.5	9.0	57.2	2.22	1.76	2.53	2.52	2.08	2.60	89.0	60[10]
1983-4	—	1.1	10.4	9.7	52.3	2.50	2.48	2.84	2.91	2.16	2.60		72[3]
1984-5[4]	—	.5	12.0	11.2	53.4	2.26	2.09	2.55	2.59	2.08	2.60		50[10]
1985-6[5]	—	.7	13.1	11.6	51.0	2.05	1.56	2.33	2.26	2.08	2.60		150[10]
1986-7[5]													

[1] Excludes support payments. [2] Prospective plantings. [3] Deficiency & diversion payments. [4] Preliminary. [5] Estimate. [6] Available for total feed grains only. [7] Disaster payments. [8] Deficiency & disaster payments. [9] Deficiency, disaster & diversion payments. [10] Deficiency payments. *Source: Commodity Economic Division, U.S.D.A.* T 24

High, Low & Closing Prices of May Barley Futures at Winnipeg In Canadian Dollars per Tonne

Year of Delivery		Year Prior to Delivery							Delivery Year					Life of Delivery Range
		June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	
1981	High	131.50	139.50	139.60	143.50	150.30	165.00	166.50	162.90	156.90	153.30	153.90	153.50	166.50
	Low	121.40	126.50	130.00	137.50	137.20	149.60	141.90	150.70	151.40	145.30	146.20	145.50	121.40
	Close	128.00	138.10	139.50	141.60	149.30	164.00	160.80	150.80	151.60	146.80	153.90	145.50	—
1982	High	144.00	144.20	141.90	133.10	134.70	133.00	130.80	133.20	132.90	128.20	125.50	133.00	144.2
	Low	133.60	136.20	128.50	127.50	129.00	127.00	126.60	128.80	126.80	118.00	121.30	121.80	118.0
	Close	134.60	142.30	131.00	129.50	132.90	127.50	129.10	131.50	127.00	125.30	122.00	125.80	—
1983	High	127.90	127.50	116.80	108.70	105.00	110.50	107.10	111.30	109.50	107.50	109.20	108.20	127.90
	Low	127.90	114.80	106.30	102.50	100.70	101.50	105.50	104.90	101.90	100.00	104.80	100.30	100.00
	Close	127.90	115.70	107.80	104.80	101.50	105.80	106.20	108.50	103.60	106.80	107.30	101.20	—
1984	High	109.00	110.50	131.00	142.10	141.00	138.00	137.00	137.00	133.00	132.00	134.60	149.00	149.00
	Low	107.30	107.50	116.20	128.50	128.80	132.30	131.70	131.80	124.80	128.30	127.60	132.10	107.30
	Close	107.50	110.50	128.60	137.20	134.00	133.90	136.20	132.60	128.90	132.00	133.00	142.00	—
1985	High	136.00	138.50	137.00	134.30	135.20	138.80	139.10	138.10	137.80	138.20	142.00	149.00	149.00
	Low	130.10	124.30	129.80	129.70	132.20	133.80	136.50	136.20	130.40	134.00	138.20	128.50	124.30
	Close	131.50	137.50	130.10	134.20	134.20	138.10	137.10	137.80	134.80	138.00	142.00	129.60	—
1986	High	—	131.10	117.00	117.00	116.90	116.20	115.60	114.40	105.40	102.60			
	Low	—	121.90	111.10	111.10	113.00	114.50	112.60	104.50	100.40	98.70			
	Close	—	122.00	113.70	113.70	115.70	115.45	113.60	104.90	100.90	102.20			

Source: Winnipeg Commodity Exchange T 26

Production of Barley in the United States, by States In Millions of Bushels

Year	Arizona	California	Colorado	Idaho	Kansas	Minnesota	Maryland	Oklahoma	Montana	North Dakota	Oregon	Pennsylvania	Utah	South Dakota	Washington	Wyoming
1979	3.2	47.4	18.7	54.9	2.3	40.8	3.8	2.5	40.6	75.9	8.3	4.0	10.4	20.8	17.0	8.7
1980	4.5	44.1	15.9	59.0	2.1	34.6	3.4	1.7	44.1	48.0	10.1	3.8	10.8	15.2	32.3	8.6
1981	4.1	40.3	18.6	63.1	1.7	57.7	5.0	1.6	56.8	105.6	11.7	4.1	11.1	20.1	44.1	9.0
1982	3.8	38.4	15.9	75.9	2.5	51.0	5.4	1.1	76.4	103.4	15.5	3.4	12.9	23.4	49.4	9.4
1983	2.8	29.4	16.5	67.0	4.6	43.5	5.0	1.5	77.7	114.7	16.5	3.6	11.4	23.1	54.4	10.0
1984	5.4	29.0	20.2	88.4	6.7	61.8	5.5	2.1	59.1	153.7	17.4	3.6	11.6	30.3	63.7	10.4
1985[1]	6.0	24.8	21.8	71.9	7.5	71.0	5.5	1.9	30.0	184.3	19.3	4.3	11.8	32.4	56.6	10.6

[1] Preliminary, December estimate. *Source: Crop Reporting Board, U.S.D.A.* T 25

Average Cash Price[2] of No. 2 (or better) Feed Barley, in Minneapolis In Cents Per Bushel

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average
1976-7	262	245	248	268	246	221	205	220	235	229	228	213	235
1977-8	176[2]	163	150	158	166	165	165	165	165	166	191	190	168
1978-9	184	171	168	177	181	188	179	171	169	186	189	196	180
1979-0	216	239	215	222	234	211	215	209	204	206	212	209	216
1980-1	215	248	239	243	277	303	275	281	290	263	251	239	260
1981-2	209	226	235	221	226	231	206	220	227	216	216	224	221
1982-3	212	185	172	169	154	158	159	163	172	173	201	195	176
1983-4	196	195	242	261	260	253	239	255	256	265	274	277	248
1984-5[1]	259	218	213	205	210	206	188	198	199	197	205	205	209
1985-6	190	166	146	140	141	149	160	157					

[1] Preliminary. [2] Prior to June 1977 prices are for No. 3 or better. *Source: Economic Research Service, U.S.D.A.*

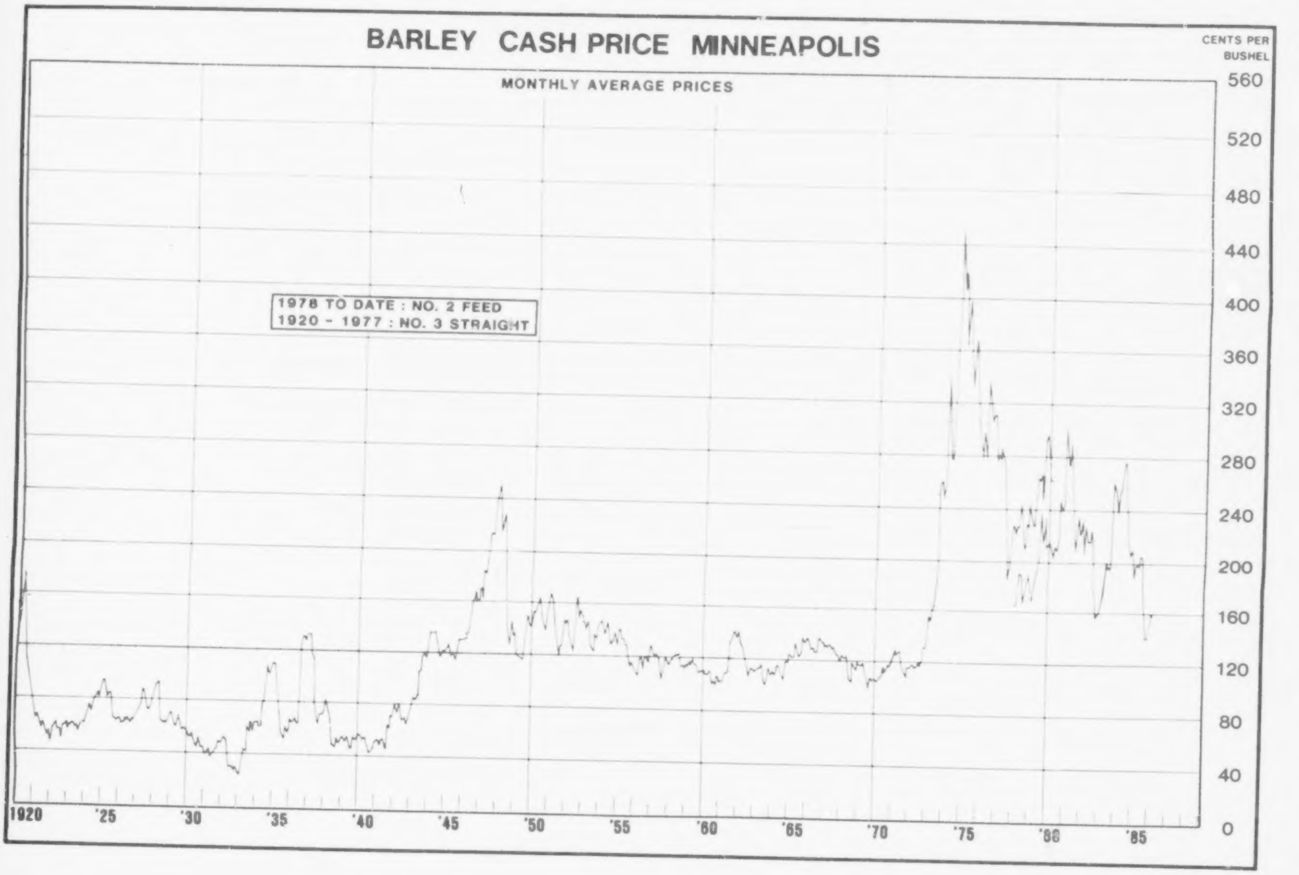
T.27

Month End Open Interest of Barley Futures at Winnipeg In Contracts (20 Tonne)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1979	16,704	18,864	18,579	23,142	17,635	23,336	26,643	25,193	24,230	20,466	22,107	21,468
1980	19,105	17,631	14,848	14,027	15,842	17,658	18,224	18,724	21,082	16,574	16,173	13,496
1981	14,560	13,335	13,836	16,380	14,252	12,968	15,101	16,620	16,086	10,971	10,591	8,832
1982	8,485	7,838	7,096	6,684	6,774	6,298	7,019	7,427	8,148	8,697	8,697	7,826
1983	9,952	10,972	9,535	10,458	11,064	12,592	12,688	18,486	19,110	17,099	15,083	10,673
1984	10,279	10,698	9,693	12,649	10,439	13,752	12,451	14,125	15,380	9,836	11,345	9,334
1985	10,984	11,828	9,622	8,152	9,187	9,187	8,808	9,529	9,948	10,166	9,948	7,624
1986	7,702	9,550	8,679									

Source: Winnipeg Commodity Exchange

T.28



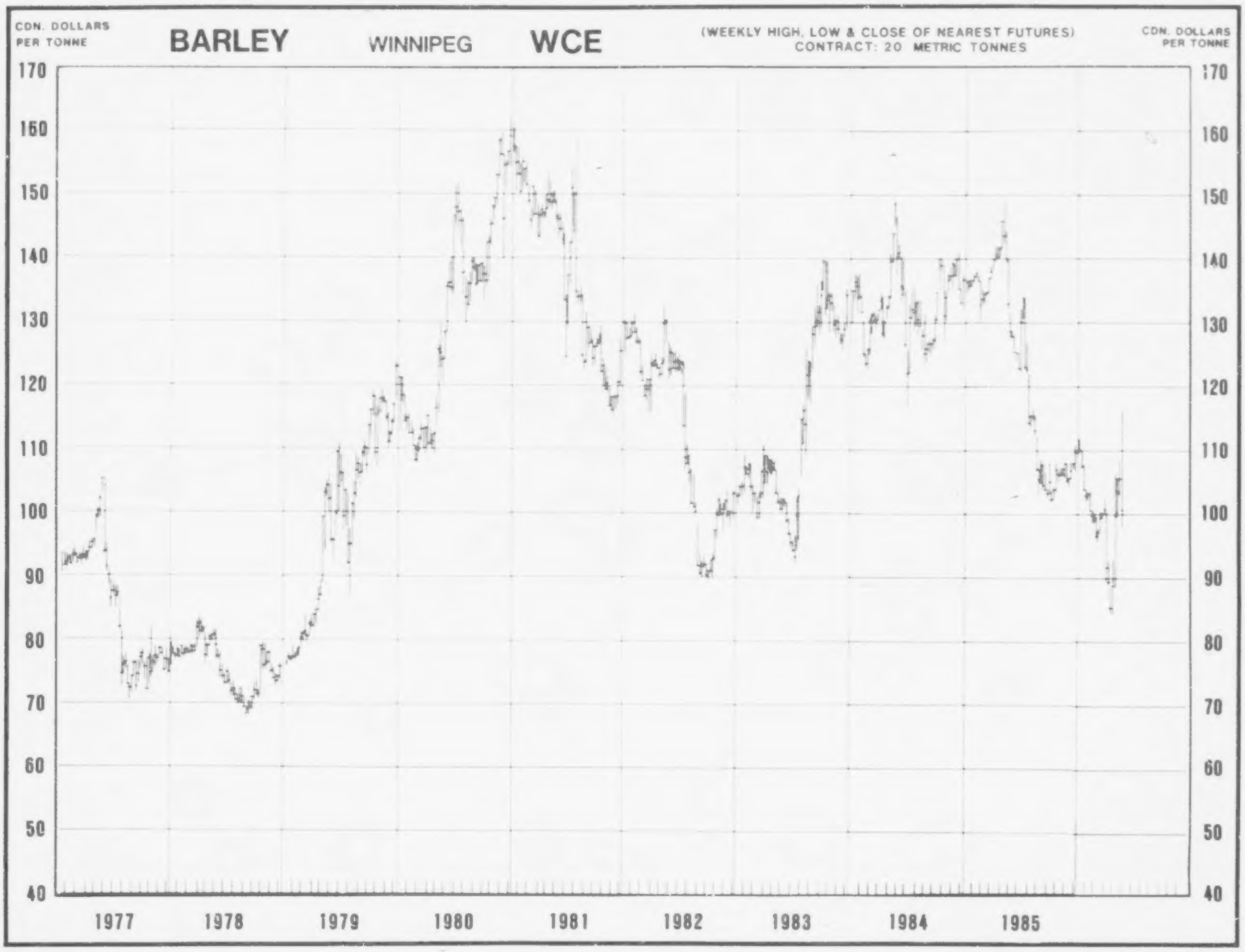
BARLEY

Salient Statistics of Barley in the United States In Millions of Bushels

Year & Periods Begin. June 1	Supply				Disappearance							Ending Stocks		
					Domestic Use									
	Beginning Stocks	Production	Imports	Total Supply	Food	Alc. Beverages	Seed	Feed & Residual	Total	Exports	Total Disapp.	Gov't Owned[1]	Privately Owned[2]	Total Stocks
1978-9	173.1	454.8	10.5	638.4	6.0	147.5	13.6	217.6	384.7	25.7	410.4	2.5	225.5	228.0
1979-0	228.0	383.2	11.8	623.0	7.0	150.9	14.0	204.2	376.1	54.8	430.9	3.2	188.9	192.1
1980-1	192.1	361.1	10.2	563.4	7.0	155.3	13.2	173.9	349.4	76.7	426.1	3.4	133.9	137.3
1981-2	137.3	473.5	9.6	620.4	6.9	150.9	16.3	198.4	372.5	100.1	472.6	3.3	144.5	147.8
1982-3	147.8	515.9	10.7	674.4	7.2	145.5	17.4	240.4	410.5	47.2	457.7	6.0	210.7	216.7
1983-4	216.7	508.9	7.1	732.7	7.0	142.5	19.9	282.4	451.8	91.5	543.3	11.9	177.5	189.4
June-Sept.	216.7	508.9	3.4	729.0	2.5	50.9	1.2	135.5	190.1	23.4	213.5	9.3	506.2	515.5
Oct.-Dec.	515.5	—	1.5	517.0	1.7	30.0	2.4	82.4	116.5	32.9	149.4	11.4	356.2	367.6
Jan.-Mar.	367.6	—	1.2	368.8	1.7	35.2	3.9	34.0	74.8	25.1	99.9	12.0	256.9	268.9
Apr.-May	268.9	—	1.0	269.9	1.1	26.4	12.4	30.5	70.4	10.1	80.5	11.9	177.5	189.4
1984-5[3]	189.4	599.2	10.1	798.7	7.0	142.0	21.2	304.2	474.4	76.9	551.3	15.6	231.8	247.4
June-Sept.	189.4	599.2	3.6	792.2	2.5	5.04	1.2	133.6	187.7	29.7	217.4	12.2	562.6	574.8
Oct.-Dec.	574.8	—	3.0	577.8	1.7	30.5	2.8	75.2	110.2	30.7	140.9	13.0	423.9	436.9
Jan.-Mar.	436.9	—	2.2	439.1	1.7	34.3	1.1	69.0	106.1	13.1	119.2	14.2	305.7	319.9
Apr.-May	319.9	—	1.3	321.2	1.1	26.8	16.1	26.4	70.4	3.4	73.8	15.6	231.8	247.4
1985-6[4]	247.4	589.2	7.3	843.9	—	170.0	—	300.0	470.0	25.0	495.0			348.9
June-Sept.	247.4	589.2	1.8	838.4	2.5	50.4	.1	118.8	171.8	11.8	183.6	29.5	625.3	654.8
Oct.-Dec.	654.8	—	2.4	657.2	1.7	30.5	2.8	81.7	116.7	6.9	123.6			533.6

[1] Uncommitted inventory. [2] Includes quantity under loan & farmer-owned reserve. [3] Preliminary. [4] Estimate. *Source: Commodity Economics Division, U.S.D.A.*

T.29



Bauxite

Worldwide production of bauxite in 1985 was estimated at 76.3 million tons, down almost 10 percent from 1984. Bauxite is the only raw material currently used in the commercial production of alumina, an intermediate product in the process of producing aluminum; other materials, notably clay, are technically feasible substitutes for bauxite but are not yet commercially applied. The current principal sources of bauxite are Australia, which supplied over 35 percent of 1985's global output, and Guinea which supplied about 16 percent. Global reserves are estimated at 23.2 million tons: Guinea's share is over 25 percent, Australia's about 20 percent, and Brazil's roughly 13 percent. Total global resources are put at 55–75 billion tons, the bulk of them in South America and Africa.

In the United States, four surface-mining companies in Alabama and Arkansas mined an estimated 565,000 tons in 1985, only two-thirds of 1984's domestic output and dwarfed by imports of more than 9 million tons. (Included in imports were 1 million long tons of Jamaican metal-grade bauxite for the National Defense Stockpile.) In addition, 4 million tons of alumina were imported, although six plants located in the U.S. (all but one of which were in operation during 1985) have the physical capacity to produce nearly 6 million tons of the intermediate product. Consequently, imports constitute 97 percent of domestic consumption.

Total domestic demand for bauxite and alumina combined amounted in 1985 to about 3.8 million tons, 12 percent fewer than in 1984. Seven-eighths of domestic and imported bauxite consumed were processed into alumina and nine-tenths of total consumption of alumina went to primary aluminum smelters. The quoted price per ton for bauxite, f.o.b. mine, was stable during 1985 at $13–$20.

The general weakness in domestic demand and production, compared with 1984, was attributable chiefly to low prices and weak demand for primary aluminum and alumina-based refractories, chemicals and abrasives. A further sharp decline in domestic bauxite output was projected for 1986, the amount falling from 565,000 tons in 1985 to fewer than 300,000 tons. Consumption was expected to be little changed in 1986, so prices were unlikely to be much different from their level in 1985. Over the longer term, demand is expected to grow at a moderate average annual rate through 1990 but—given larger under- and unused capacity in the industry—prices are not likely to change significantly.

World Production of Bauxite In Thousands of Metric Tons

Year	Australia	Brazil	China	France	Greece	Guinea	Guyana[2]	Hungary	Indonesia	Jamaica[3]	Malaysia	Surinam	USSR[1]	U.S.[3]	Yugoslavia	World Total
1976	24,084	827	1,300	2,330	2,551	10,848	2,686	2,918	940	10,296	660	4,613	4,500	1,989	2,033	77,417
1977	26,086	1,120	1,500	2,059	2,885	10,841	2,731	2,949	1,301	11,390	616	4,805	4,600	2,013	2,044	81,931
1978	24,293	1,160	1,500	1,978	2,663	11,527	2,425	2,899	1,008	11,739	615	5,188	4,600	1,669	2,565	80,975
1979	27,583	2,388	1,500	1,969	2,812	11,326	2,312	2,976	1,052	11,618	387	5,010	4,600	1,821	3,012	85,522
1980	27,179	5,538	1,500	1,921	3,286	11,862	1,844	2,950	1,249	12,054	920	4,646	4,600	1,559	3,138	89,220
1981	25,441	5,770	1,500	1,827	3,216	11,112	1,681	2,914	1,203	11,682	701	4,100	4,600	1,510	3,249	85,426
1982	23,625	6,289	1,500	1,662	2,853	11,827	1,783	2,627	700	8,361	589	3,059	4,600	732	3,668	78,144
1983[1]	24,540	7,199	1,600	1,716	2,455	12,421	1,791	2,917	778	7,683	502	2,886	4,600	679	3,500	78,861
1984[2]	29,300	5,239	1,600	1,528	2,800	13,160	1,556	2,994	942	8,734	657	3,454	4,600	856	3,347	84,664
1985[2]	27,000	6,000			3,000	12,000	2,300	2,900		5,300		1,100	4,600	565	3,100	76,300

[1] Preliminary. [2] Estimate. [3] Dry Bauxite equivalent of ore processed. *Source: Bureau of Mines* T.30

U.S. Salient Statistics of Bauxite In Thousands of Metric Tons

Year	Net Import Reliance as a % of Apparent Consumption	Av. Price F.O.B. Mine $ per Ton	Mine Production			Recovery[1] of Processed Bauxite			Dry Equivalent			Stocks, Dec. 31			
			Crude	Dried Equivalent	Value ($1,000)	Crude Ore Treated	Recovered[1] Total	Recovered[1] Dried Equiv.	Imports[2] (for Consumption)	Exports[2]	Consumption	Producers & Processors	Consumers	Govt.	Total
1976	91	5–15	2,420	1,989	26,645	366	175	289	12,749	15	14,039	526	4,923	15,308	20,756
1977	91	5–15	2,436	2,013	27,555	419	169	294	12,989	26	14,528	685	7,264	15,087	23,036
1978	93	5–15	2,066	1,669	23,185	379	154	236	13,847	13	14,738	556	7,806	14,661	23,023
1979	93	5–15	2,186	1,821	24,875	466	235	336	13,780	15	15,697	620	7,958	14,661	23,239
1980	94	6–16	1,869	1,559	22,353	355	179	277	14,087	21	15,962	662	7,681	14,661	23,004
1981	94	8–20	1,847	1,510	26,489	419	187	328	12,802	20	13,525	897	7,395	14,661	22,953
1982	96	8–20	896	732	12,334	234	120	184	10,122	49	9,217	614	6,548	16,326	23,488
1983	96	13–20	826	679	11,309	293	140	225	7,601	74	9,100	552	5,061	16,326	21,939
1984[3]	96	13–20	1,054	856	15,643	361	168	294	9,428	82	10,519	501	4,367	17,338	22,206
1985[4]	97	13–20		674					7,944	40			4,800–		

[1] Calcined, or sintered. [2] Including concentrates. [3] Preliminary. [4] Estimate. *Source: Bureau of Mines* T.31

Beer

United States Production of Beer (Fermented Malt Liquors) In Millions of Barrels (of 31 Wine Gallons[1])

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1973	10.98	10.73	13.14	12.86	13.83	13.09	13.76	14.17	12.12	12.38	10.90	10.65	148.60
1974	12.19	10.98	13.05	13.09	14.71	15.04	15.75	14.61	12.67	12.28	10.71	11.11	156.20
1975	12.55	11.18	12.41	14.50	14.34	15.76	16.08	14.72	13.35	12.35	11.22	12.15	160.60
1976	12.44	11.89	11.86	13.69	15.18	15.76	16.54	16.10	14.31	13.42	11.29	11.19	163.66
1977	11.98	11.48	16.20	16.03	16.79	16.90	15.92	15.31	13.26	12.61	12.02	12.01	170.50
1978	12.87	12.71	15.86	15.62	16.57	16.88	16.74	17.61	14.63	14.01	12.71	12.87	179.66
1979	13.83	13.57	16.89	16.34	16.98	16.77	16.96	16.76	14.70	15.28	13.14	12.97	184.19
1980	14.64	14.91	16.56	16.54	17.97	17.93	18.69	18.02	16.29	15.64	13.56	13.32	194.08
1981	13.31	14.58	16.72	17.68	18.87	18.63	18.80	17.72	15.72	14.61	13.12	13.93	193.69
1982[2]	15.19	15.00	17.65	17.86	18.22	18.19	17.17	19.50	15.64	15.07	13.65	13.31	194.35
1983[2]	14.77	14.56	16.78	15.54	18.17	18.47	18.50	18.27	15.71	15.30	13.62	12.46	195.12
1984[2]	14.15	14.75	17.72	16.65	18.59	18.47	18.64	17.59	14.58	15.14	13.06	12.89	193.02
1985[2]	14.50	14.46	16.76	17.97	18.86	18.23	18.59	17.71	14.54	14.36			
1986													

[1] "Wine gallon" or "gallon" is a U.S. gallon of liquid measure equivalent to the volume of 231 cubic inches. [2] Preliminary. Source: *Internal Revenue Service*

T 32

Tax-Paid Withdrawals of Beer (Fermented Malt Liquors) in the U.S.

In Millions of Barrels (of 31 Wine Gallons[1])

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1973	9.67	9.43	12.01	11.65	12.87	12.55	12.77	13.68	11.52	11.54	10.73	10.08	138.47
1974	10.97	9.87	11.82	11.74	13.76	13.86	14.73	13.89	12.09	11.59	10.42	10.74	145.46
1975	11.12	9.84	11.57	13.01	13.42	14.44	14.75	13.88	12.51	11.90	10.61	11.59	148.64
1976	10.86	11.00	10.99	12.91	13.59	14.16	15.01	14.86	13.44	12.22	10.52	10.83	150.39
1977	10.01	10.43	14.55	14.28	15.00	15.71	14.80	14.64	12.89	11.62	11.49	11.51	156.92
1978	10.69	11.01	14.20	13.60	14.96	15.82	15.29	16.28	13.72	12.99	12.04	11.57	162.71
1979	12.32	12.01	15.01	14.98	15.92	15.57	15.13	15.56	13.71	13.64	12.52	11.76	168.14
1980	12.54	12.64	14.08	14.33	16.19	16.66	17.08	16.28	14.51	14.16	12.51	12.38	173.37
1981	12.08	12.41	15.01	15.47	17.00	17.29	17.37	16.24	14.68	13.84	12.39	12.91	176.70
1982[2]	11.90	12.91	15.68	15.81	16.56	17.22	16.10	16.26	14.88	13.83	13.14	12.27	176.57
1983[2]	12.79	12.66	15.07	15.49	16.84	17.01	16.85	17.35	14.84	13.77	13.17	11.98	177.50
1984[2]	12.42	12.63	15.32	14.88	16.67	17.23	16.90	16.97	13.66	14.29	12.40	11.38	175.56
1985[2]	13.51	12.74	14.46	15.86	17.60	16.17	16.63	16.04	13.59	14.01			
1986													

[1] "Wine gallon" or "gallon" is a U.S. gallon of liquid measure equivalent to the volume of 231 cubic inches. [2] Preliminary. Source: *Internal Revenue Service*

T 33

U.S. Stocks of Beer (Fermented Malt Liquors) at End of Month In Millions of Barrels (of 31 Wine Gallons[1])

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1973	13.07	13.70	14.01	14.43	14.48	14.20	14.30	13.81	13.58	13.52	12.93	12.76
1974	13.17	13.56	13.92	14.32	14.31	14.47	14.33	14.04	13.72	13.53	13.04	12.58
1975	13.21	13.54	13.76	14.26	14.17	14.30	14.45	14.18	13.98	13.48	13.20	12.74
1976	13.39	13.33	13.31	13.06	13.53	13.89	14.03	13.92	13.60	13.69	13.48	12.91
1977	14.01	14.17	14.58	15.03	15.57	15.37	15.13	14.45	13.58	13.53	13.02	12.42
1978	13.92	14.07	14.56	15.01	14.99	14.55	19.81	14.33	14.01	13.71	13.50	13.76
1979	14.00	14.06	14.44	14.98	14.74	14.50	14.83	14.30	13.87	12.59	13.37	13.29
1980	13.33	14.07	14.84	15.31	17.44	15.43	14.71	15.13	15.01	14.70	14.36	13.96
1981	13.98	14.95	15.12	15.26	15.78	15.24	14.98	14.53	14.42	13.99	13.38	12.95
1982[2]	14.16	14.93	16.32	15.83	15.59	15.28	14.45	14.31	13.99	14.00	13.43	13.22
1983[2]	13.89	14.46	16.05	16.21	15.84	15.82	15.73	14.98	14.53	14.30	13.92	13.26
1984[2]	13.70	14.17	15.24	15.55	15.87	15.67	14.88	14.44	13.69	13.75	12.85	12.86
1985[2]	13.72	14.18	14.97	15.21	14.90	15.24	14.97	13.93	13.77	13.23		
1986												

[1] "Wine gallon" or "gallon" is a U.S. gallon of liquid measure equivalent to the volume of 231 cubic inches. [2] Preliminary. Source: *Internal Revenue Service*

T 34

Bismuth

World production of bismuth, mainly derived as a byproduct of copper and lead ore processing, was estimated to have fallen about 6 percent in 1985. Output was lower in all four leading producing countries—Australia, Mexico, Peru, and Japan. Australia, which provided about 40 percent of world output in 1985, produced a bismuth bearing copper blister. Mexico produces bismuth from lead production and Peru produces the metal from copper-lead ores.

U.S. bismuth production is provided by one Nebraska company which processes intermediate metallurgical products. Domestic output in 1985 was estimated as virtually the same as in 1984. (U.S. production statistics are withheld by the Bureau of Mines to avoid disclosing proprietary company data.) However, imports provide most of total U.S. supplies and are primarily in the form of refined metal. In 1985, imports expanded about 3 percent from the year before and came mainly from Mexico, Belgium, the United Kingdom, and Peru. Also an exporter of bismuth, bismuth alloys, and scrap, the U.S. shipped about 14 percent less of the metal in 1985 than the previous year. As in 1984, the United Kingdom was the number one destination for shipments.

U.S. bismuth consumption was estimated to have fallen 7 percent in 1985, due mainly to a decline in usage in pharmaceuticals and chemicals. Consumption continued to be largely by industries located in the eastern and northern U.S. Domestic consumption was divided in 1985 as follows: pharmaceuticals and chemicals, 59 percent; manufacturing of machinery parts, 23 percent; primary metal industries, 16 percent; and other uses, 2 percent. In 1985, the U.S. steel industry started producing free-machining alloy bar steels which use bismuth as an additive.

Ending stocks in 1985 were estimated at 8 percent lower than the previous year. The National Defense Stockpile inventory of bismuth was 2.08 million pounds, as of September 30, 1985, slightly below the government goal of 2.20 million pounds.

The single domestic bismuth producer did not publish a list price in 1985. Dealer prices began the year at the $6.50–$6.70 level and were lower thereafter, falling to $3.50–$3.80 by the end of December.

The Bureau of Mines estimates that bismuth demand should increase at an average annual rate of 1.4 percent from a 1983 base through 1990.

There are a number of substitutes for bismuth but they tend to be more expensive or uncompetitive in terms of quality. In pharmaceuticals, bismuth can be replaced by antibiotics, magnesia and alumina. As a steel additive, tellurium is a bismuth substitute. And for bismuth alloys, plastics can be substituted.

World Mine Production of Bismuth In Thousands of Pounds

Year	Romania (Ore)	Australia (concentrates)	Bolivia (concentrates)	Canada	China (Ore)	France (Metal)	South Korea (Metal)	Yugoslavia (Metal)	Japan (Metal)	Mexico (Metal)	Peru (Metal)	W. Germany (Ore)	USSR (Metal)	World Total
1976	180	1,650	1,349	286	485	139	384	172	1,502	1,228	1,149	24	130	8,689
1977	180	2,054	1,435	363	500	115	293	163	1,538	1,607	1,420	24	140	9,872
1978	180	2,324	677	320	530	N.A.	269	29	1,375	2,156	1,347	20	150	9,412
1979	180	2,200	22	306	570	N.A.	192	51	1,010	1,662	1,162	22	160	7,548
1980	180	2,650	24	377	570	N.A.	271	183	745	1,698	1,096	0	160	7,954
1981	180	2,600	24	370	570	N.A.	220	225	1,054	1,446	1,409	0	170	8,268
1982	180	3,310	11	417	570	N.A.	209	108	1,071	1,336	1,351	0	170	8,733
1983[1]	180	3,100	13	445	570	N.A.	200	99	1,263	1,202	1,179	—	180	8,431
1984[2]	180	3,310	10	440	570	N.A.	200	88	1,240	1,300	1,160	—	180	8,675
1985[2]		3,200	100	400			200		1,100	1,000	1,000			8,100

[1] Preliminary [2] Estimate *Source: Bureau of Mines*

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U.S. Salient Statistics of Bismuth In Thousands of Pounds

	Bismuth Consumed, By Uses									General Imports of Metallic Bismuth from			
Year	Experimental	Metallurgical Additives	Other Alloys	Fusible Alloys	Chemicals[4]	Other Uses	Total Consumption	Consumer Stocks Dec. 31	Exports of Metal & Alloys	Peru	Mexico	Japan	Total	Price[1] $ Per Pound
1976	8.8	455.9	20.3	518.6	1,391.7	15.3	2,410.6	483.8	68.5	569.1	248.1		2,328.1	7.50
1977	.6	461.6	18.6	611.2	1,274.5	13.1	2,379.6	436.1	95.3	632.4	182.2		2,013.3	6.01
1978	.6	485.3	21.8	836.0	1,149.7	18.6	2,511.9	781.9	96.3	334.7	535.3		2,657.8	3.38
1979	3.2	703.8	22.0	721.0	1,248.7	28.5	2,727.2	629.7	427.8	648.7	604.8	185.5	2,167.3	3.01
1980	1.2	467.9	26.5	650.9	1,115.6	26.7	2,288.8	674.0	128.7	619.1	860.4	138.4	2,217.4	2.64
1981	.2	307.0	26.0	657.0	1,387.6	15.0	2,392.7	509.0	78.7	859.3	724.1	124.1	2,436.2	2.32
1982	.5	124.6	21.4	571.6	1,144.8	13.6	1,876.4	541.6	52.8	864.1	699.5	41.4	2,026.2	1.61
1983	1.7	522.8	20.0	622.8	1,103.7	13	2,285.3	577.5	306.1	653.7	706.6	68.3	1,972.0	1.72
1984[2]	—	424.5	20.0	608.8	1,573	22	2,648.4	480.0	311.5	391.8	430.5	209.2	1,948.4	4.27
1985[3]	—	558.3	21.0	647.3	1,216.4	10	2,452.8	612.7	268.7	173.3	678.2	99.4	1,998.9	5.38

[1] N.Y., average ton lots; effective Oct. 1981, domestic producers' list price was suspended. Major foreign producer price is recorded. [2] Preliminary. [3] Estimate. [4] Includes pharmaceuticals. *Source: Bureau of Mines*

T 36

Broilers

U.S. production of broiler meat in 1985 reflected a 4 percent gain in the number of birds and also heavier birds. Heavier birds continued in demand for further processing, as the larger amount of white meat per bird improved returns. Increased slaughter in 1985 reflected reduced feed costs and continued favorable returns to broiler producers. Exports of young chicken meat (primarily broilers) increased 2 percent over the depressed level of 407 million pounds in 1984. Exports in 1985 accounted for about 3 percent of estimated total production, approximately the same as in 1984. Exports to Hong Kong increased significantly in 1985 while exports to Japan, the largest importer, declined.

Reduced supplies of red meats and favorable returns to broiler producers due to reduced feed costs were expected to encourage further expansion in broiler meat production in 1986. However, a continued tight supply of grow-out houses and layers in hatchery supply flocks suggested that gains might be limited. In early April 1986, the USDA forecast 1986 broiler meat production at 14.24 billion pounds, up almost 4.8 percent from 1985 output. Per capita consumption was expected to increase to 57.0 pounds from 54.8 pounds in 1985. The composite 12-city broiler price was expected to remain near 50¢ per pound during 1986.

Broiler Supply and Prices in the United States

Year & Quarters	Federally Inspected Slaughter Number (Mil.)	Avg. Wt. (Lbs.)	Liveweight Pounds (Mil. Lbs.)	Certified RTC Wt. (Mil. Lbs.)	Total Production RTC[2] (Mil. Lbs.)	Per Capita Consumption (Lbs.)	Prices (Cents/Lb.) Farm	City[4]
1980	3,915	3.93	15,409	11,175	11,334	47.0	27.7	46.8
1981	4,076	4.01	16,350	11,906	11,981	48.6	28.5	46.3
1982	4,068	4.04	16,456	12,039	12,175	50.0	26.9	44.0
1983[1]	4,133	4.09	16,984	12,389	12,400	50.8	29.2	50.4
1984[3]	4,272	4.17	17,801	12,999	13,011	53.0	33.7	55.5
I	1,015	4.16	4,225	3,082	3,091	12.7	37.2	61.8
II	1,098	4.16	4,574	3,350	3,355	13.7	33.7	56.4
III	1,107	4.13	4,573	3,339	3,343	13.6	32.2	54.0
IV	1,052	4.21	4,429	3,227	3,222	13.0	29.4	49.9
1985[3]	4,435	4.20	18,605	13,556	13,578	54.7	30.1	50.7
I	1,056	4.21	4,440	3,229	3,232	13.1	30.5	51.5
II	1,146	4.21	4,820	3,513	3,517	14.2	29.7	50.6
III	1,153	4.14	4,771	3,484	3,491	14.1	30.3	50.8
IV	1,080	4.23	4,575	3,331	3,337	13.4	29.8	50.0

[1] Preliminary. [2] Total production equals fed. inspec. slaughter plus other slaughter minus cut-up & further processing condemnation. [3] Forecast. [4] 12-city weighted average. *Source: Commodity Economics Division, U.S.D.A.*

T.38

Salient Broiler Statistics in the United States

Year	Commercial[2] Production Number Millions	Live weight Mil. Lbs.	Average Live weight Per Bird Lb.	Farm Price ¢ Lb.	Value of Production Mil. $	Total Chickens[2] Supply & Distribution (In Millions of Pounds) Commercial Broilers	Other Chickens	Total	Storage Stocks Jan. 1	Exports & Shipments	Consumption-Civilian Military	Total	Per Capita in Lbs.
1980	3,963	15,539	3.95	27.7	4,303	11,357	752	12,109	142	781	38	11,295	50.1
1981	4,148	16,520	4.01	28.4	4,699	11,992	743	12,736	136	920	36	11,767	51.6
1982	4,149	16,760	4.04	26.9	4,502	12,175	744	12,919	149	675	36	12,222	53.1
1983	4,184	17,038	4.09	28.6	4,873	12,400	715	13,115	135	591	36	12,510	53.8
1984[1]	4,284	17,855	4.17	33.7	6,015	13,011	696	13,707	139	580	36	13,065	55.7
1985[3]	4,300	18,000	4.20	30.1	5,500	13,578	679	14,257	171	582	36	13,607	57.4

[1] Preliminary. [2] Ready-to-cook basis. [3] Estimate. *Source: Economic Research Service, U.S.D.A.*

T.39

Average Wholesale Broiler[1] Prices RTC In Cents Per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Avg.	4-Region Ave. Retail	Hens N.Y.[2] 8-16 Lbs.
1981	49.5	50.3	48.2	44.4	46.3	49.3	50.2	47.3	43.6	43.7	42.5	40.1	46.3	73.7	59.7
1982	45.2	44.5	44.8	42.6	45.8	47.0	46.1	43.4	43.6	42.3	40.3	42.0	44.0	71.6	60.8
1983	43.1	45.2	41.9	40.9	46.9	49.1	52.8	54.2	54.5	50.4	56.3	57.1	49.4	72.8	60.5
1984	62.1	61.2	62.0	56.0	57.6	55.5	57.3	51.5	53.6	48.8	52.1	49.0	55.6	81.4	74.4
1985	52.8	51.9	49.7	47.8	50.9	53.4	50.2	50.1	52.2	48.3	53.7	48.7	50.8	76.3	75.5

[1] Ice packed, ready-to-cook. [2] In retail stores (urban areas), whole or cut-up ready to cook. *Source: Bureau of Labor Statistics*

T.37

Burlap and Jute

Average Producer Price Index of Raw Jute, Bang Tossa C., Landed, at New York 1967 = 100[1]

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
1980	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	29.0	28.5	29.0	29.0	28.8
1981	N.A.	27.35	27.35	N.A.	29.0	N.A.	29.0	29.0	29.0	29.0	24.0	22.55	27.30
1982	23.50	23.40	23.15	24.50	N.A.	N.A.	23.20	25.50	25.50	25.50	25.50	25.50	24.53
1983[1]	154.6	154.6	154.6	154.6	154.6	154.6	154.6	154.6	154.6	154.6	154.6	154.6	154.6
1984	154.6	154.6	154.6	178.9	178.9	178.9	178.9	178.9	178.9	178.9	288.1	N.A.	182.2
1985	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1986[2]	102.9												

[1] Data Prior to 1983 are in *Cents Per Pound* [2] Data beginning Jan. 1986 are for jute & linen goods including yarns & fabrics with *June 1985 = 100 as the index*. *Source: Bureau of Labor Statistics* (0391-0101.99) T.41

Average Wholesale Price of Burlap (40 Inch—10 Oz.) at New York In Cents Per Yard

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
1980	N.A.	39.8	40.0	38.5	N.A.	N.A.	N.A.	N.A.	33.5	33.5	N.A.	33.0	36.4
1981	N.A.	27.35	27.35	N.A.	29.0	N.A.	29.0	29.0	29.0	29.0	24.0	22.55	27.36
1982	23.50	23.40	23.15	24.50	N.A.	23.30	23.20	23.35	25.25	26.75	25.50	24.30	23.29
1983	22.65	24.25	26.35	26.20	24.40	25.20	24.75	25.50	26.25	26.95	29.65	31.70	26.15
1984	31.25	30.55	30.55	30.55	29.70	29.70	32.85	33.85	36.05	37.95	39.85	39.40	33.52
1985	39.60	37.25	36.05	35.80	36.40	34.25	31.15	31.15	26.50	24.90	23.75	25.10	31.83
1986													

Source: Bureau of Labor Statistics (0337-0461.01) T.42

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Butter

An early calculation by the USDA put world production of butter and butter oil in 1985 at 6.7 million metric tonnes, or about 1 percent lower than in 1984. The largest reduction in year-over-year output took place in the European Community, where a quota program on milk deliveries cut production by a hefty 8 percent; a further reduction of 2 percent was projected for 1986. Poland's butter output also fell during 1985 and was expected to fall further in 1986. On the other hand, production of butter and butter oil rose in New Zealand in 1985 and also in the U.S., USSR and India. In New Zealand's case, the 1986 forecast was for falling production of butter and butter oil, because New Zealand is trying to export more cheese and whole milk powder, while also curbing further growth in its large and rising stock of butter. In the other three nations named, milk production is expected to rise and, with it, production of butter and butter oil.

International prices for butter and butter oil fell sharply during 1984 and continued the downtrend during 1985. With stocks in various countries at a high level and with output drifting downward only slowly, there is little reason to expect a reversal in price trends in the near future. On the contrary, prices may move even lower if the major producers of butter and butter oil persist in exporting those products by means of vigorous price competition, particularly through usage of export subsidies.

In the U.S., increasing output was joined during 1986 by rising consumption per capita. Thanks to growing retail usage of table spreads that are a blending of butter and margarine, usage of butter gained an estimated 2.4 percent, to 5.1 pounds per capita. Producers' prices of butter fell on the order of 3.3 percent during 1985. Retail prices, however, increased 4.3 percent, to a nationwide average of $2.20 per pound.

Despite rising demand, purchases of butter under the dairy price support program were dramatically higher in 1985 than the year before, rising 121 million pounds or 63 percent.

Supply and Distribution of Butter in the United States In Millions of Pounds

	Supply					Distribution								93 Score Wholesale Prices	
	Production					Domestic Disappearance				Dept. of Agr.					
						Civilian									
Year	Creamery	Farm	Total	Cold Storage Stocks[1] Jan. 1[2]	Imports	Total	Per Capita —Lbs—	Military	Exports & Shipments[4]	Jan. 1 Stocks[5]	Dec. 31 Stocks[5]	Removed by U.S.D.A. Programs	Total Use	Calif. AA $ Lb.	Chi. AA $ Lb.
1978	994	—	994	185	2	966	4.4	3	5	151	192	112	974	1.2666	1.1058
1979	985	—	985	207	2	1,005	4.5	6	5	192	153	82	1,016	1.4327	1.2374
1980	1,145	—	1,145	178	2	1,012	4.5	5	3	153	268	257	1,020	1.6135	1.4079
1981	1,228	—	1,228	305	3	982	4.3	4	121	268	382	352	1,107	1.6855	1.4897
1982	1,257	—	1,257	429	3	1,050	4.6	20	153	382	439	382	1,222	1.7187	1.4839
1983	1,299	—	1,299	467	3	1,177	5.1	16	77	439	464	413	1,270	1.7229	1.4832
1984	1,103	—	1,120	499	3	1,165	5.0	16	115	464	260	203	1,295		
1985[3]	1,260	—		297						260	169	334			
1986[3]				206						169					

[1] Commercial. [2] Includes stocks held by U.S.D.A. [3] Preliminary. [4] Includes U.S.D.A. shipments to Territories. [5] Includes butteroil. *Source: Department of Agriculture* T 43

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World (Total) Butter[1] Production In Thousands of Metric Tons

Year	Australia	Brazil	Canada	China	Czechoslovakia	Argentina	Denmark	France	Ireland	W. Germany	Netherlands	N. Zealand	India	Poland	Sweden	USSR	South Africa	Un. Kingdom	United States
1979	105		106	95		32	131	596	132	568	202	255	475	293	65	1,409	18	161	447
1980	84	100	111	95	128	29	113	618	124	578	179	265	480	294	66	1,388	17	168	519
1981	79	60	125		127	32	108	599	125	545	183	247	620	260	64	1,318	15	170	557
1982	76	70	134		138	37	121	624	140	556	216	248	650	265	70	1,403	17	216	570
1983	88	70	104		149	32	131	637	164	627	271	252	670	300	73	1,562	19	240	589
1984[2]	111	70	108		152	28	104	621	171	572	241	287	690	322	77	1,588	18	205	500
1985[3]	114	70	95		150	30	110	595	164	515	229	295	700	303	75	1,595	18	201	566

[1] Factory (including creameries and dairies) & farm. [2] Preliminary. [3] Forecast. *Source: Foreign Agricultural Service, U.S.D.A.* T.44

Production of Creamery Butter in Factories in the United States In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	98.4	86.7	89.8	92.4	99.2	83.0	72.5	64.3	60.5	78.0	75.8	84.0	984.6
1980	105.7	99.9	101.1	112.2	116.6	93.9	83.7	75.3	77.0	91.4	84.7	103.6	1,145
1981	123.1	108.4	115.5	117.3	115.5	95.9	82.7	82.3	85.2	99.5	93.4	109.5	1,228
1982	127.3	115.9	123.4		334.0			256.4			300.0		1,257
1983	139.1	119.2	123.6	124.0	120.7	103.7	91.4	84.6	84.7	100.5	98.1	109.6	1,299
1984	127.3	108.9	107.6	103.0	105.1	81.8	72.7	70.2	67.5	84.4	79.8	95.1	1,103
1985[1]	118.4	107.5	105.9	111.4	112.9	95.6	92.4	92.1	92.1	109.3	99.4	115.4	1,248
1986[1]	135.8	119.4	120.2										

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.45

Commercial Disappearance of Creamery Butter in the U.S. In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	83.1	78.3	88.5	70.7	64.2	68.1	72.5	66.2	63.4	78.4	84.4	78.7	895.0
1980	75.0	86.1	88.8	47.7	54.2	59.4	73.2	78.8	77.3	66.3	78.1	93.5	878.8
1981		188.9			214.2			222.9			243.2		869.2
1982		211.4			217.6			217.3			251.0		897.3
1983		209.5			198.6			217.0			256.6		881.7
1984[1]		194.0			241.3			215.6			251.9		902.7
1985[1]		205.7			205.0			244.5			275.2		930.5

[1] Preliminary. *Source: Economic Research Service, U.S.D.A.* T.46

Cold Storage Holdings of Creamery Butter in the U.S., on First of Month In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1980	177.8	191.0	205.6	217.2	238.1	281.7	295.9	308.0	306.4	302.9	301.5	302.7
1981	304.6	332.1	372.3	407.4	450.4	473.6	507.5	515.5	515.6	489.5	470.0	451.1
1982	429.2	430.3	440.4	447.8	—	—	541.6	—	—	510.0	—	—
1983	466.8	485.4	522.0	529.0	555.7	576.1	589.6	588.4	581.8	552.3	523.9	506.7
1984	499.4	510.6	532.5	529.3	532.4	538.5	516.7	489.6	462.7	426.3	374.3	335.9
1985[1]	296.6	277.3	289.4	291.7	272.7	283.2	286.8	280.7	264.6	247.0	231.6	206.9
1986[1]	205.5	206.3	245.5	289.4								

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.47

Wholesale Price of 92 Score Creamery (Grade A, Bulk) Butter at Chicago In Cents Per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1980	130.2	130.3	130.4	134.3	136.9	139.0	139.3	144.5	145.1	147.1	147.6	147.7	139.3
1981	147.3	147.3	147.3	147.3	147.3	147.5	147.9	148.0	148.5	150.6	148.9	148.1	148.0
1982	147.5	147.5	147.8	147.4	147.3	147.3	147.6	148.1	148.4	147.4	148.2	147.9	147.7
1983	147.3	147.3	147.3	147.3	147.3	147.3	147.8	151.0	147.6	147.3	143.1	143.1	147.3
1984	140.4	141.3	142.1	142.9	142.9	150.0	155.6	150.6	158.1	158.1	158.1	145.6	148.8
1985	141.5	141.3	141.3	141.9	141.9	141.9	141.5	140.7	141.2	141.6	139.5	139.1	141.1
1986	138.8	138.8											

Source: Economic Research Service, U.S.D.A. T.48

Cadmium

In the U.S., cadmium is recovered as a byproduct from smelting zinc concentrates. The U.S. is the number one world consumer of the metal, while Japan is the largest producer of refined output. Cadmium is used in this country primarily for plating and alloying, which accounted for about 35% of its use in 1985, and in batteries, pigments, and plastics. Apparent U.S. consumption increased about 4% from 1984 to 1985.

U.S. cadmium output in 1985 fell about 7% from the 1984 level, but was still above 1983 production. The Bureau of Mines anticipated a further decline in 1986. Production in this country is provided by 4 companies operating 5 refineries. In 1985, a cadmium plant accompanying a zinc refinery in Texas was closed indefinitely. Furthermore, employment in cadmium production fell about 50% from 1981 to 1985. Domestic shipments of cadmium metal in 1985 dropped 4% and compound shipments retreated 21%, compared with 1984.

Imports of cadmium expanded about 5% in 1985 from the year earlier but were still below levels that prevailed in the early 1980s. In 1985, Canada provided over 50% of U.S. imports and Australia, Germany, and Mexico were other important suppliers.

U.S. exports have been on a downtrend and in 1985 were 5% below year earlier shipments. Major U.S. customers in 1985 were France, Sweden, and the Netherlands.

Mainly because of increased consumption, year-end stocks of cadmium in 1985 were about 4% lower than the year before. The U.S. cadmium strategic stockpile goal and stockpile inventories both remained unchanged from the year before at 5,307 tonnes and 2,871 tonnes, respectively, as of Sept. 30, 1985.

U.S. dealer prices of cadmium were $1.11–$1.15 per pound at the beginning of 1985. During most of the year prices fluctuated but fell to $0.77–$0.88 per pound at the year's end.

U.S. demand for cadmium is expected to expand 1.7% annually, from a 1983 base, through 1990, according to the Bureau of Mines. The greatest U.S. growth potential for cadmium is in nickel-cadmium batteries, and there are new uses for cadmium sulfide and telluride in solar photovoltaic cells. The mid-continent U.S. has large resources of cadmium in zinc-bearing coals while, in other countries, Carboniferous-age coals are believed to be sizable sources.

World Smelter Production of Cadmium Metal In Metric Tons

Year	Australia[4]	Belgium	Canada[4]	China	Finland	France	W. Germany	Italy	Japan	Mexico[4]	Norway	Poland	Un. King	USSR	United States[3]	Zaire	World Total
1976	649	1,200	1,314		428	532	1,275	436	2,500	710	80	750	190	2,700	2,047	266	16,998
1977	670	1,440	1,185		527	790	1,336	448	2,844	908	97	754	295	2,750	1,999	246	18,288
1978	747	1,164	1,265		611	694	1,182	378	2,531	897	120	761	291	2,800	1,653	186	17,310
1979	804	1,440	1,455		590	689	1,266	527	2,597	830	115	773	424	2,850	1,823	212	18,679
1980	1,012	1,524	1,303	250	581	789	1,194	568	2,173	778	130	698	375	2,850	1,578	168	18,238
1981	1,031	1,176	1,298	270	621	663	1,192	489	1,977	590	117	580	278	2,900	1,603	230	17,381
1982	1,010	996	809	300	566	793	1,030	475	2,034	607	104	570	354	2,900	1,007	281	16,378
1983	1,100	800	1,107	300	616	540	1,095	456	2,214	642	117	570	340	3,000	1,052	308	16,725
1984[2]	1,200	850	1,200	300	600	500	1,100	400	2,400	650	110	570	340	3,000	1,686	310	17,687
1985[2]	1,200	850	1,200						2,400	650					1,568		17,500
1986																	

[1] Preliminary. [2] Estimate. [3] Primary & secondary metal. [4] Refined. *Source: Bureau of Mines* T 49

Salient Statistics of Cadmium in the United States In Metric Tons of Contained Cadmium

Year	Net Import Reliance as a % of Apparent Consumption	Production				Imports (for Consumption)				Exports Cadmium Metal, Alloys, Dross			Stocks, Dec. 31		
		Primary											Industry		
			Producers												
		Metallic	Shipments	Value Mil. $	Cadmium Sulfide[3]	Metallic	Flue Dust[3]	Total	Price[5] $ per lb	Flue Dust	Value Ths. $	Consumption[4]	Metallic	Compounds	Distributors
1975	41	1,990	742	4.2	895	2,375	314	2,689	3.36	180	589	3,055	1,881	121	
1976	64	2,047	2,707	10.5	729	3,094	223	3,317	2.66	229	713	5,381	1,242	148	
1977	51	1,999	1,837	7.1	639	2,332	13	2,345	2.96	107	316	3,818	1,452	72	255
1978	63	1,653	1,957	5.9	698	2,881	—	2,881	2.45	326	864	4,510	1,152	45	296
1979	64	1,823	2,468	9.5	813	813	—	2,572	2.76	211	550	5,099	517	52	327
1980	55	1,578	1,271	5.2	801	2,617	—	2,617	2.84	236	464	3,534	841	42	439
1981	63	1,603	1,382	3.8	527	3,090	—	3,090	1.93	239	332	4,378	1,077	68	215
1982	73	1,007	1,832	2.6	374	2,305	—	2,305	1.11	11	126	3,728	635	167	150
1983	72	1,052	1,495	1.8	670	2,196	—	2,196	1.13	170	351	3,763	209	49	91
1984[1]	50	1,686	1,811	2.6	771	1,889	—	1,889	1.69	106	208	3,371	208	59	52
1985[1]	55	1,568	1,731		727	1,988	—	1,988	1.20	86		3,500	159	105	6

[1] Estimate. [2] Preliminary. [3] Cd content. [4] Apparent Primary cadmium in all forms. [5] Sticks & Balls in 1 to 5 short ton lots. *Source: Bureau of Mines* T 50

Castor Beans

World production of castorseed in the 1985/86 season (October/September) was estimated by *Oil World* prior to the beginning of the season at 1.21 million tonnes, 9 percent above estimated 1984/85 production and the highest output on record. Production in India was expected to drop by about 14 percent from 1984/85. Estimated 1985 production in Brazil was expected to have increased by about 71 percent from estimated 1984 output of 225,000 tonnes. Bahia is the main producing state in Brazil, most of whose crop is harvested in May–September. Production in China was forecast to be about unchanged from the previous crop.

Global castor oil production was estimated to have increased by about 10 percent in 1985, to around 429,000 tonnes. The expected increase in production was shared by India and Brazil. World stocks of castor oil at the start of the 1985/86 season were about 19 percent above estimated October 1, 1984, stocks of 106,000 tonnes. The major increases in stocks were expected in European consuming countries. West Germany and Japan are usually the major importers of castorseed. France, the Soviet Union and the United States are normally the world's largest importers of castor oil.

U.S. imports of castor oil in the 1984/85 season were about 8 percent lower than in the previous season. Although castor oil prices were weak during much of 1985, the consumption of castor oil in the U.S. declined. To some extent, this may have reflected substitution of synthetic oils for castor oil in industrial uses. U.S. consumption of castor oil in inedible products dropped 5 percent in October 1984/September 1985 from 1983/84. U.S. stocks of castor oil on October 1, 1985, were estimated by the U.S. Bureau of Census at 14.6 million pounds, sharply above the 7.0 million pounds on hand a year earlier.

World Production of Castor Seed Beans In Thousands of Metric Tons

Crop Year	China	Brazil	Ecuador	Ethiopia	India	Romania	Paraguay	Israel	Mexico	Pakistan	Thailand	USSR	Philippines	Sudan	World Total
1981-2	137	292	8	1	310	5	17		6	18	36	42	19	3	919
1982-3	156	192	5	1	345	8	20		5	26	34	89	14	2	922
1983-4[1]	179	172	6	1	405	6	17		4	24	25	65	18	2	949
1984-5[2]	164	225	6	1	469	8	16		4	17	23	58	24	1	1,040
1985-6[2]	175	386	6	1	350	7	15		4	19	26	60	22	1	1,096

[1] Preliminary. [2] Estimate. *Source: Foreign Agricultural Service, U.S.D.A. "The Oil World."* T.51

Castor Oil Consumption[1] in the United States In Thousands of Pounds

Crop Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
1982-83	5,143	6,486	6,307	6,551	7,223	6,216	6,281	6,122	4,642	3,849	5,725	7,488	72,033
1983-84[2]	5,488	4,749	4,965	4,764	4,990	5,296	5,599	6,723	5,663	7,958	7,859	6,812	70,866
1984-85[2]	6,937	5,581	4,178	4,519	5,178	5,930	5,169	7,480	7,158	5,320	5,816	3,839	67,105
1985-86[2]	4,807	3,614	3,840	3,059	5,027								

[1] In inedible products (Resins, Plastics, etc.). [2] Preliminary. *Source: Bureau of the Census.* T.52a

Castor Oil Stocks in the United States In Thousands of Pounds

Crop Year	Oct. 1	Nov. 1	Dec. 1	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1
1982-83	6,874	5,922	7,820	6,722	6,278	6,742	4,966	9,155	6,493	4,837	8,975	4,766
1983-84[1]	5,501	5,688	6,086	4,860	5,096	2,101	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1984-85[1]	6,998	7,432	5,669	11,734	10,403	11,129	18,518	24,952	19,072	21,623	16,652	16,001
1985-6[1]	14,632	17,087	28,477	21,031	24,189	25,817						

[1] Preliminary. *Source: Bureau of the Census.* T.52b

Monthly Average Wholesale Prices of Castor Oil[1] at New York In Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1981	46.70	45.90	45.00	45.00	44.60	44.10	43.50	44.30	43.70	43.30	43.30	43.30	44.39
1982	42.80	43.30	43.30	43.30	44.70	45.90	46.50	45.50	45.50	45.50	45.50	45.50	44.78
1983	45.50	45.50	45.50	46.80	49.50	49.50	53.40	61.80	78.50	78.50	78.50	78.50	59.29
1984	78.50	78.50	78.50	78.50	78.50	73.70	69.00	77.30	65.00	65.00	65.00	65.00	72.71
1985	65.0	65.0	65.0	65.0	65.0	36.0	36.0	36.0	36.0	36.0	36.0	34.0	47.92

[1] Average wholesale, TANK CARS, IMPORTED BRAZIL. *Source: Foreign Agricultural Service, U.S.D.A.* T.53

Cattle and Calves

U.S. cattle and calf inventory on January 1, 1986 was 105.5 million head, down 4 percent from a year earlier and the lowest number since 1963. Producers continued to liquidate herds because of poor financial returns on livestock and falling land values, and to improve cash flow and reduce debt. The beef cow inventory declined to 33.6 million head, down 5 percent from the previous year and the lowest number since 1966. USDA estimated the calf crop at 41 million, down 3 percent from January 1, 1985.

The continuing declines in U.S. cattle numbers will reduce beef production by 3 to 5 percent in 1986 from 23.5 billion pounds in 1985. Output was expected to begin to decrease in the second quarter as fed cattle supplies tightened and nonfed slaughter declined.

Beef replacement heifers on January 1 were down 7 percent from a year ago. Producers have liquidated herds for four consecutive years, and the lower number of heifers being held indicates the beef cow herd will decline again during 1986.

U.S. federally inspected cattle slaughter in 1985 totaled 34.8 million head vs. 35.9 million in 1984. Federally inspected calf slaughter in 1985 was 3.2 million head vs. 3.0 million in the previous year.

Seasonal increases in beef production during the second half of 1986, combined with accelerated pork and broiler output, are likely to pressure prices the remainder of the year.

The number of cattle on feed in the 13-major cattle states on January 1, 1986, totaled 6.7 million head vs. 10.7 million in feedlots on January 1, 1985.

Futures Markets

Live Beef cattle futures are traded at the Chicago Mercantile Exchange and at the MidAmerica Exchange. A feeder cattle futures contract also is traded at the Chicago Mercantile Exchange.

World Cattle and Buffalo Numbers In Millions of Head

Year	Argentina	Australia	Brazil	Canada	China	Colombia	France	W. Germany	India	Poland	Turkey	Mexico	South Africa	USSR	Un. Kingdom	United States	World Total[1]
1981	58.8	25.2	93.0	12.2	95.0	24.4	23.6	15.1	245.6	11.3	16.9	34.0	13.2	115.1	13.1	114.4	943
1982	57.9	24.6	93.0	12.1		24.2	23.5	15.0	260.0	11.5	17.0	34.7	13.1	115.9	13.0	115.4	959
1983	58.0	22.5	93.0	11.7		24.0	23.7	15.1	263.7	11.0	16.5	33.9	12.5	117.2	13.2	115.0	959
1984	58.6	22.2	93.3	11.4		22.4	23.5	15.6	267.5	11.1	16.0	33.9	12.1	119.6	13.1	113.7	962
1985[2]	58.8	22.7	94.7	11.0		21.9	23.1	15.7	271.4	10.9	15.5	33.9	12.0	121.1	13.0	109.7	965
1986[1]	57.6	23.6	95.2	10.6		20.5	22.9	15.6	275.3	10.8	15.0	33.7	12.2	120.7	12.6	105.5	962

[1] Estimate. [2] Preliminary. *Source: Foreign Agricultural Service, U.S.D.A.* T.54

U.S. Cattle on Feed in 7 States In Thousands of Head

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1	Average
1982	7,201	7,055	6,869	7,024	7,066	7,363	7,181	6,836	6,817	7,153	8,143	8,324	7,201
1983	8,316	8,052	7,604	7,268	7,221	7,331	7,278	6,861	6,704	6,951	7,683	7,814	8,316
1984	8,006	7,917	7,515	7,568	7,376	7,318	7,125	6,811	6,747	7,442	8,221	8,544	8,006
1985	8,635	8,169	7,877	7,814	7,495	7,444	7,057	6,404	6,155	6,461	7,582	7,892	8,035
1986	7,860												

Source: Economic Research Service, U.S.D.A. T.54a

U.S. Cattle Placed on Feedlots in 7 States In Thousands of Head

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1982	1,457	1,320	1,798	1,565	1,853	1,420	1,205	1,731	1,994	2,660	1,785	1,533	20,261
1983	1,509	1,179	1,394	1,566	1,843	1,595	1,174	1,582	2,003	2,358	1,711	1,736	19,744
1984	1,566	1,301	1,764	1,515	1,798	1,445	1,323	1,680	2,265	2,546	1,945	1,624	20,772
1985	1,449	1,342	1,594	1,417	1,666	1,267	1,078	1,510	1,988	2,779	1,776	1,480	19,346
1986	1,581												

Source: Economic Research Service, U.S.D.A. T.54b

U.S. Cattle Marketings in 7 States In Thousands of Head

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1982	1,522	1,413	1,547	1,414	1,413	1,510	1,482	1,689	1,575	1,527	1,485	1,430	18,007
1983	1,643	1,506	1,593	1,470	1,583	1,570	1,497	1,651	1,682	1,626	1,459	1,425	18,701
1984	1,569	1,621	1,594	1,523	1,637	1,544	1,553	1,683	1,489	1,657	1,501	1,414	18,785
1985	1,782	1,540	1,559	1,603	1,589	1,572	1,670	1,670	1,603	1,573	1,380	1,401	18,989
1986	1,740												

Source: Economic Research Service, U.S.D.A. T.54c

Cattle Supply and Distribution in the United States In Thousands of Head

Year	Cattle & Calves on Farms Jan. 1	Imports	Calves Born	Total Supply	Livestock Slaughter—Cattle and Calves: Commercial: Federally Inspected	Other[2]	All Commercial	Farm	Total Slaughter	Deaths on Farms	Exports	Total Disappearance
1981	114,351	680	44,666	159,676	35,273	2,478	37,751	400	38,151	4,897	88	43,136
1982	115,444	1,005	44,200	160,649	36,636	2,211	38,864	400	39,264	5,440	58	44,762
1983	115,001	921	43,925	159,847	37,614	2,111	39,725	411	40,136	5,501	56	45,693
1984[1]	113,700	753	42,500	156,955	38,910	1,969	40,879	411	41,290	5,475	71	46,805
1985	109,749	836	44,045	151,030	34,631	1,657	36,288			5,030	125	45,200
1986[1]	105,468											

[1] Preliminary. [2] Wholesale and retail. *Source: Economic Research Service, U.S.D.A.* T 56

U.S. Cattle on Feed in 13 States, Quarterly In Thousands of Head

Year		I	II	III	IV	Year		I	II	III	IV
1981	Number on Feed[1]	9,845	8,666	8,646	8,210	1984	Number on Feed[1]	9,908	9,340	8,700	9,000
	Placed on Feed	4,816	5,590	5,275	6,193		Placed on Feed	5,511	5,562	6,252	7,559
	Marketings	5,557	5,113	5,460	5,034		Marketings	5,714	5,620	5,684	5,507
1982	Number on Feed[1]	9,028	8,818	8,981	8,800	1985[2]	Number on Feed[1]	10,653	9,688	8,670	7,937
	Placed on Feed	5,572	5,781	5,846	7,216		Placed on Feed	5,315	5,206	5,480	7,275
	Marketings	5,443	5,209	5,773	5,374		Marketings	5,907	5,787	5,969	5,194
1983	Number on Feed[1]	10,271	9,153	9,070	8,465	1986[1]	Number on Feed[1]	9,694			
	Placed on Feed	5,027	5,894	5,583	7,272	1986[2]	Placed on Feed				
	Marketings	5,694	5,527	5,891	5,436		Marketings	5,810			

[1] Beginning of Period. [2] Preliminary. *Source: Economic Research Service, U.S.D.A.* T 56a

United States Beef Supply and Utilization

Year		Commercial production	Farm production	Beginning stocks	Imports	Total supply	Exports	Shipments	Military purchases	Ending stocks	Total disappearance	Per capita disappearance	Retail weight per capita	Population
		Million Pounds										*Pounds*		*Million*
1982	I	5,455	59	257	367.93	6,138.93	55.45	12.54	36	212	5,822.93	25.42	18.81	229.10
	II	5,363	25	212	538.37	6,138.37	65.56	14.74	39	190	5,829.07	25.39	18.79	229.60
	III	5,730	26	190	655.72	6,601.72	55.83	15.09	35	248	6,247.80	27.14	20.08	230.20
	IV	5,818	60	248	377.16	6,503.16	72.90	12.93	25	294	6,098.32	26.42	19.55	230.80
	Year	22,366	170	257	1,939.18	24,732.18	249.74	55.30	135	294	23,988.13	104.28	77.17	229.90
1983	I	5,527	64	294	527.89	6,412.89	66.81	10.35	28	299	6,008.73	25.95	19.20	231.50
	II	5,556	27	299	516.67	6,398.67	61.96	10.27	34	254	6,038.44	26.02	19.22	232.00
	III	6,015	28	254	539.04	6,836.04	71.62	9.14	34	268	6,453.28	27.74	20.53	232.60
	IV	5,962	64	268	347.47	6,641.47	71.71	10.47	25	325	6,209.29	26.66	19.73	233.20
	Year	23,060	183	294	1,931.07	25,468.07	272.10	40.23	121	325	24,709.74	106.38	78.72	232.30
1984[1]	I	5,708	61	325	470.5	6,564.5	90.0	10.8	24	326	6,113.6	26.16	19.36	233.70
	II	5,819	26	326	371.0	6,542.0	70.5	13.2	36	303	6,119.3	26.13	19.34	234.20
	III	5,949	26	303	513.7	6,791.7	86.6	14.2	27	320	6,343.9	27.03	20.00	234.70
	IV	5,933	61	320	467.9	6,781.9	81.6	9.1	25	358	6,308.2	26.74	19.78	236.00
	Year	23,418	180	325	1,823	25,746	328.8	47.3	112	358	24,901	106.18	78.58	234.80
1985[1]	I	5,691	63	358	420	6,532	82	12	28	334	6,076	26	19	236.00
	II	5,917	27	334	534	6,812	77	12	31	293	6,399	27	20	237.00
	III	6,166	22	293	633	7,114	91	12	41	308	6,662	28	28	237.00
	IV	5,774	63	308	481	6,626	78	12	26	315	6,195	26	19	238.00
	Year	23,548	175	358	2,068	26,149	328	48	126	416	25,231	107	79	237.00

[1] Preliminary. *Source: Economic Research Service, U.S.D.A.* T 56b

Condition[1] of Pasture and Range Feed in the United States, on First of Month In Percent of Normal

Year	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1982	81	79	87	90	86	82	81	80	N.A.
1983	84	80	85	88	76	63	66	73	N.A.
1984	74	75	79	80	75	70	66	74	N.A.
1985	79	83	81	77	70	75	76	79	N.A.

[1] Indicates current supply of feed for grazing on non-irrigated pastures & ranges relative to that expected from existing stands under very favorable weather conditions. [80 & over, good to excellent; 65–79, poor to fair; 50–64, very poor; 35–49, severe drought; under 35, extreme drought.] *Source: Statistical Reporting Service, U.S.D.A.* T 57A

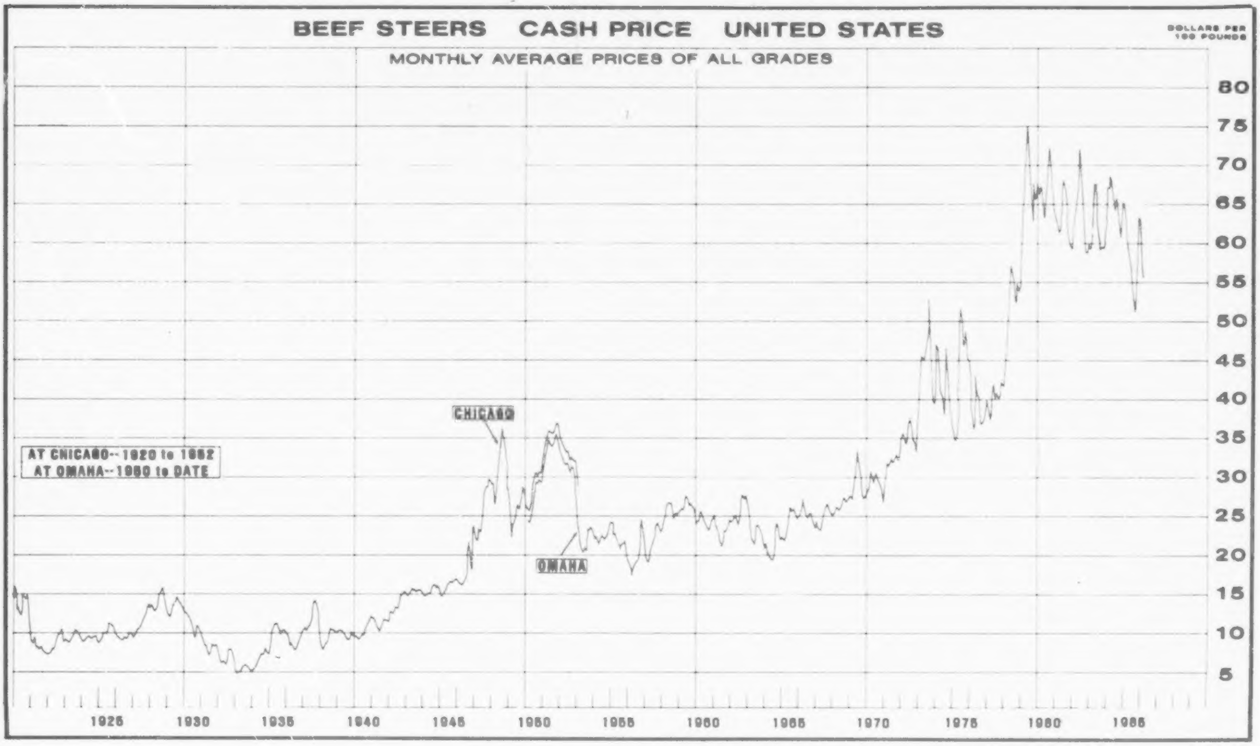
CATTLE AND CALVES

Weekly Federally Inspected Cattle Slaughter in the United States In Thousands of Head

Week ended 1983	Cattle			Steers			Cows		
	1984	1985	1986	1984	1985	1986	1984	1985	1986
Jan. 1[1]	589	522	521	292	241	243	133	109	105
8	606	553	591	277	247	269	164	129	137
15	699	736	756	325	323	343	180	183	189
22	707	741	755	339	355	343	163	153	176
29	693	679	704	333	327	321	169	140	153
Feb. 5	657	666	669	318	313	308	159	146	143
12	689	672		344	313		150	133	
19	683	657		326	301		153	146	
26	666	670		317	311		146	142	
Mar. 5	684	680		329	323		139	131	
12	675	678		324	332		145	127	
19	689	676		342	311		143	137	
26	644	622		319	289		134	128	
Apr. 2	650	620		312	282		139	124	
9	631	612		301	264		135	118	
16	662	640		328	286		143	119	
23	651	659		322	322		148	127	
30	655	681		322	320		147	123	
May 7	666	684		332	344		149	115	
14	712	686		361	336		145	116	
21	730	711		368	356		152	120	
28	743	689		364	335		155	130	
June 4	642	600		317	288		132	113	
11	720	662		361	328		149	125	
18	722	673		363	344		150	110	
25	706	684		336	338		155	121	
July 2	708	685		333	328		157	131	
9	605	559		285	294		112	84	
16	742	707		337	334		168	131	
23	705	697		317	324		164	140	
30	680	678		313	331		152	119	
Aug. 6	696	659		327	319		158	114	
13	710	683		323	324		161	102	
20	701	705		322	327		153	128	
27	717	720		317	338		171	136	
Sept. 3	745	706		329	334		175	133	
10	653	613		296	295		144	110	
17	748	726		338	332		176	136	
24	745	714		343	346		174	128	
Oct. 1	710	690		316	310		169	137	
8	733	671		321	289		167	148	
15	729	692		305	300		175	147	
22	731	674		313	293		176	155	
29	701	678		312	299		179	159	
Nov. 5	700	633		309	273		187	155	
12	683	666		298	292		175	167	
19	694	666		308	283		176	174	
26	577	655		261	289		139	166	
Dec. 3	711	550		298	255		194	130	
10	701	653		284	281		191	170	
17	733	680		305	290		186	193	
24	702	670		305	297		175	167	

[1] Corresponding date 1984: Dec. 31, 1983. *Source: Economic Research Service, U.S.D.A.*

T 57b



BEEF STEERS CASH PRICE UNITED STATES

MONTHLY AVERAGE PRICES OF ALL GRADES

Average Wholesale Prices of Beef Steers at Omaha, Choice (900–1100 Lbs.) In Dollars Per 100 Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1981	63.08	61.50	61.40	64.92	66.86	68.26	67.86	66.37	65.37	61.45	59.81	59.24	63.84
1982	60.75	63.54	65.80	69.11	72.10	70.18	66.18	65.14	61.25	58.78	58.91	59.82	64.22
1983	59.33	61.20	64.03	67.70	67.51	65.90	62.22	61.27	59.19	59.58	59.41	62.85	62.52
1984	67.08	67.07	68.60	67.86	65.89	64.28	65.79	64.36	62.68	60.85	64.24	65.32	65.33
1985	64.35	62.80	59.58	58.72	57.58	56.69	53.26	51.94	51.29	58.02	63.30	62.94	58.37
1986	59.69	56.42	55.55										

Source: Economic Research Service, U.S.D.A. T.65

Average Prices of Steers (Stocker & Feeder) Kansas City In Dollars Per 100 Pounds

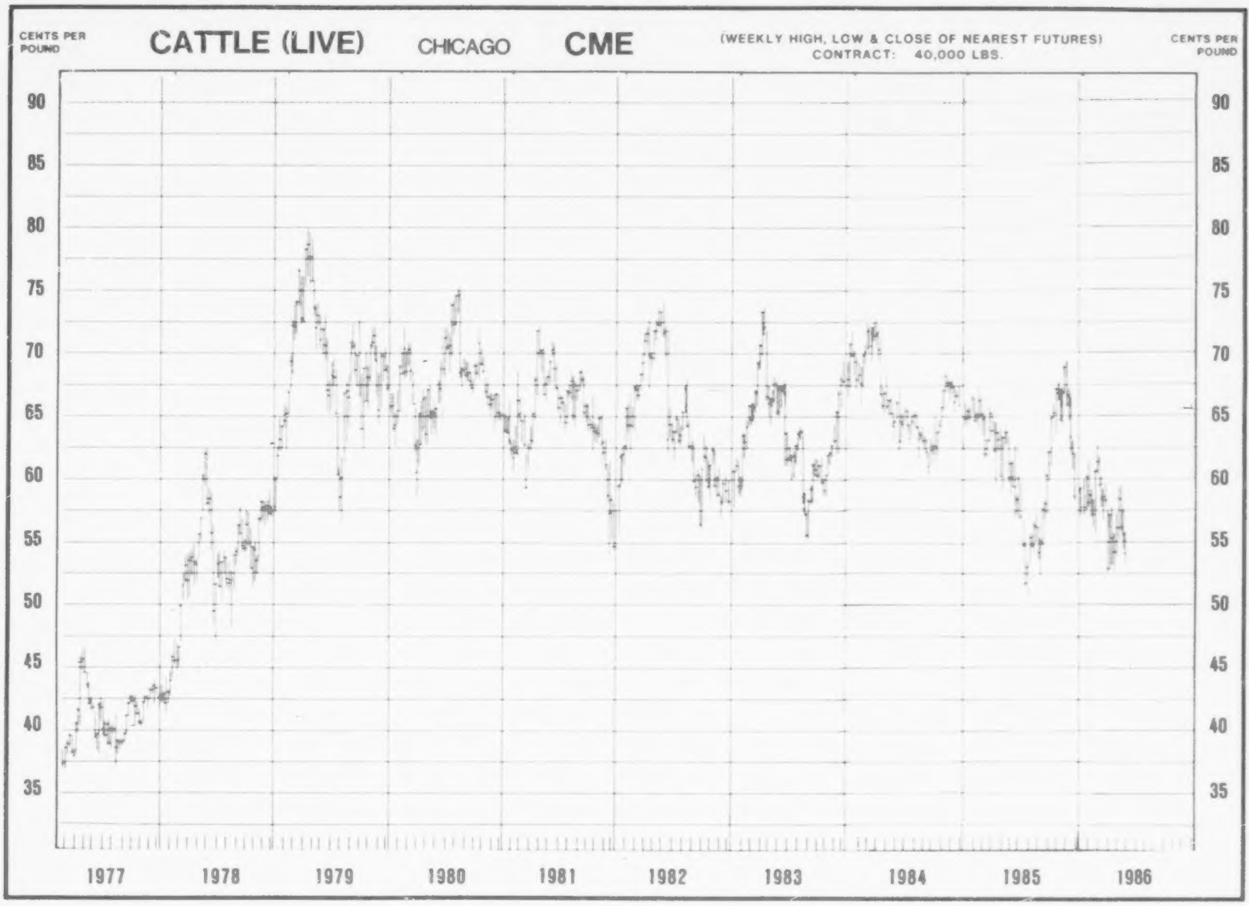
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1981	68.56	68.41	65.47	66.28	63.10	63.51	61.51	64.15	64.58	62.52	61.77	58.96	64.26
1982	59.22	62.37	63.96	64.72	66.07	63.70	64.17	66.42	63.55	62.21	61.24	59.17	62.79
1983	63.70	66.34	66.71	65.90	63.88	60.41	58.21	59.58	55.81	56.97	58.12	61.00	61.39
1984	64.39	65.97	66.30	64.15	60.82	59.28	62.17	61.34	62.01	62.74	63.96	64.26	63.11
1985	66.00	67.02	66.66	66.06	64.25	59.11	57.43	57.81	56.27	59.12	60.05	62.04	62.08
1986	61.34	61.68											

Source: Economic Research Service, U.S.D.A. T.61

Federally Inspected Slaughter of Cattle in the United States In Thousands of Head

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1982		8,183			8,192			8,770			8,762		33,907
1983	2,894	2,554	2,828	2,615	2,820	3,000	2,737	3,220	3,156	3,099	2,899	2,994	34,816
1984[1]	2,951	2,836	2,954	2,728	3,169	3,062	2,996	3,260	2,903	3,313	2,923	2,784	35,880
1985[1]	3,134	2,661	2,761	2,848	3,052	2,770	3,023	3,089	2,877	3,097	2,669	2,778	34,760
1986[1]	3,204	2,613											

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.66

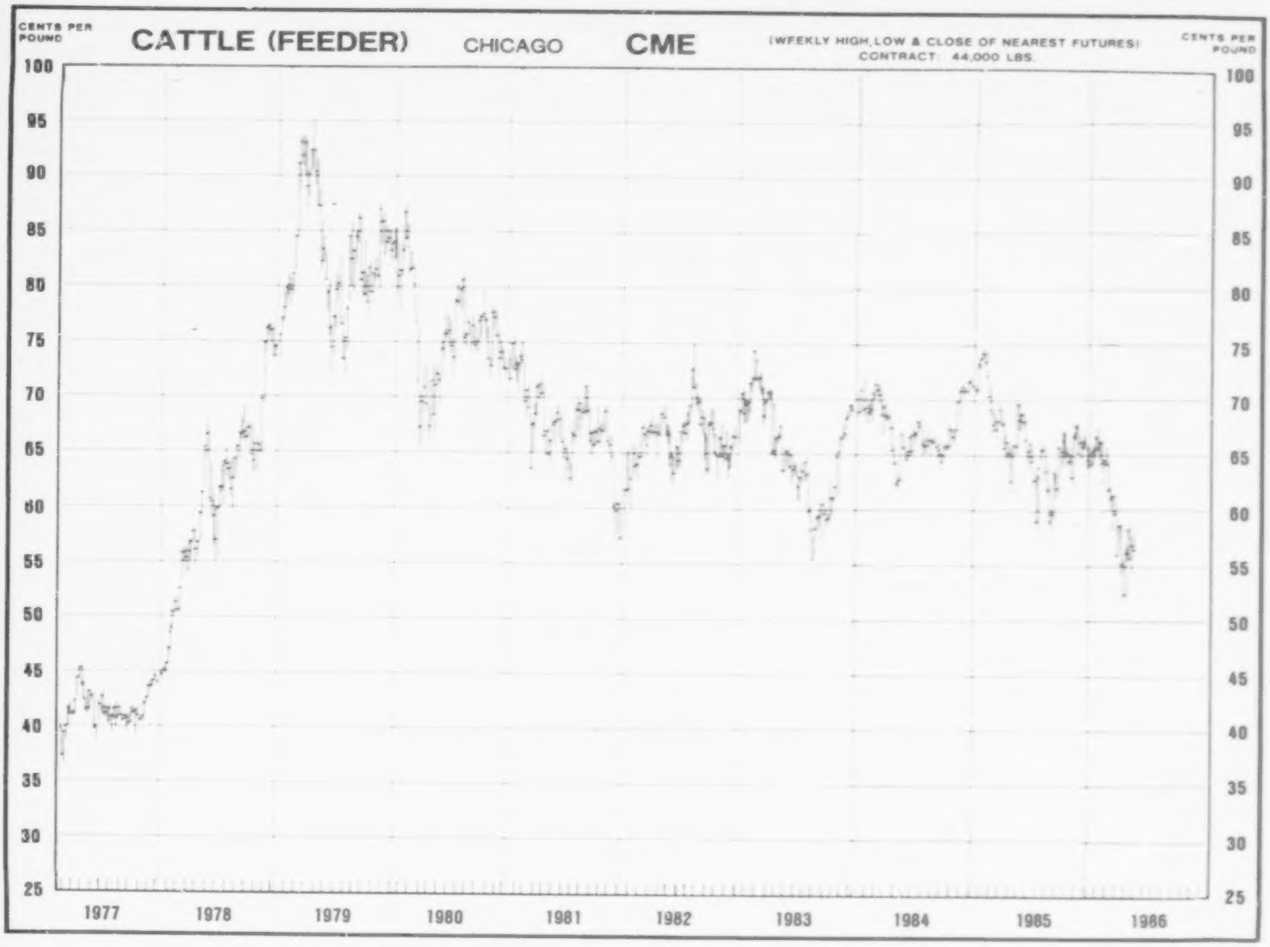


High, Low & Closing Prices of June Live Beef Cattle Futures at Chicago In Cents per Pound

Year of Delivery		Year Prior to Delivery									Delivery Year						Life of Delivery Range
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
1980	High	75.00	74.50	73.60	74.40	72.85	74.30	76.10	76.95	75.80	76.00	75.10	73.77	67.20	67.50	69.50	76.95
	Low	69.20	70.55	68.10	65.45	64.05	70.40	69.12	72.05	72.02	67.70	71.35	63.22	60.25	62.80	63.35	60.25
	Close	73.75	70.90	71.40	66.30	72.62	73.75	72.57	74.92	75.05	71.80	71.95	63.60	64.82	65.30	69.02	—
1981	High	—	—	—	75.25	74.92	76.00	76.60	76.50	76.35	72.65	71.42	68.55	72.40	70.72	70.97	76.60
	Low	—	—	—	70.80	71.80	72.85	72.90	73.67	69.40	68.05	66.65	63.17	70.10	66.22	67.62	63.17
	Close	—	—	—	73.95	74.87	73.55	74.37	76.07	71.32	68.72	67.77	68.55	70.17	68.17	69.35	—
1982	High	72.30	71.90	70.40	67.95	66.97	67.35	66.72	66.05	63.55	61.60	64.75	66.87	70.10	73.65	74.00	74.00
	Low	70.40	68.05	66.85	64.82	64.02	64.42	64.60	61.80	54.75	56.00	60.65	62.72	66.20	69.30	69.57	54.75
	Close	70.40	69.80	67.00	67.02	65.37	65.27	65.20	63.30	55.77	61.40	62.92	66.42	69.57	73.37	70.00	—
1983	High	—	65.50	63.30	64.55	63.72	63.25	62.50	61.80	62.00	63.90	66.47	69.77	71.15	68.05	67.70	71.15
	Low	—	63.90	60.00	60.50	61.77	58.40	58.02	58.52	58.55	60.75	62.90	64.80	65.10	64.30	65.75	58.02
	Close	—	64.10	62.75	62.85	62.30	59.27	59.62	60.80	61.10	62.72	65.27	69.62	66.12	66.05	66.85	—
1984	High	—	—	62.25	64.65	66.55	65.70	65.55	66.30	67.65	68.35	69.35	69.85	69.70	67.35	67.25	69.85
	Low	—	—	61.35	61.10	62.95	63.00	63.20	63.60	65.05	65.45	65.10	67.00	65.62	64.60	63.32	61.10
	Close	—	—	61.80	64.15	63.25	64.90	63.75	65.45	67.05	66.05	69.10	68.70	66.17	64.62	66.05	—
1985	High	—	—	66.55	67.35	67.40	67.70	67.10	68.15	68.10	69.00	69.50	67.75	66.92	64.27	61.47	69.50
	Low	—	—	66.00	65.00	65.00	65.70	65.20	66.30	66.50	66.35	66.55	64.60	62.32	59.05	56.80	56.80
	Close	—	—	66.55	65.00	67.37	66.40	66.75	67.70	67.85	68.35	67.37	67.20	62.65	60.10	56.80	—
1986	High	—	66.60	66.05	64.55	62.75	62.25	63.40	62.45	63.05	63.15	62.50	60.52				
	Low	—	65.60	63.00	58.10	59.10	56.25	60.00	59.90	60.15	58.65	57.40	58.20				
	Close	—	65.90	63.35	60.20	59.60	62.22	61.47	62.42	61.40	61.97	61.37	58.25				

Source: Chicago Mercantile Exchange

T 62



Month End Open Interest of Live Beef Cattle Futures at Chicago In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1980	57,192	60,701	50,406	55,582	53,319	59,162	67,059	57,314	58,815	58,009	64,570	45,864
1981	45,325	45,425	48,336	54,045	48,667	50,162	44,597	53,142	51,267	54,025	61,763	51,226
1982	51,036	51,082	61,160	58,383	61,341	48,314	44,024	44,645	42,694	42,412	44,085	45,115
1983	49,014	56,500	59,992	59,771	58,548	47,307	42,292	49,524	52,174	48,215	49,014	51,629
1984	54,669	57,351	59,793	50,190	44,142	41,790	38,689	37,064	38,416	45,984	64,085	57,242
1985	58,769	57,744	63,236	57,324	56,216	49,594	45,674	48,583	50,888	65,037	68,592	59,361
1986	53,559	55,203	52,551									

Source: *Chicago Mercantile Exchange*

T.64

Volume of Trading of Live Beef Cattle Futures at Chicago In Thousands of Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	646.0	545.5	562.0	568.6	499.5	460.7	604.3	443.8	461.1	461.0	348.3	395.2	5,997.0
1981	354.8	347.8	430.7	416.4	350.0	361.0	320.8	329.3	348.9	327.7	335.3	359.7	4,282.4
1982	387.2	332.5	434.3	355.8	389.3	458.4	340.2	326.0	353.1	421.2	337.4	305.6	4,441.0
1983	370.4	332.7	455.8	489.0	389.1	328.9	302.2	324.9	344.1	335.4	297.9	277.9	4,248.2
1984	457.4	397.6	404.2	323.2	256.4	215.5	265.3	202.6	181.0	245.9	345.7	258.5	3,553.3
1985	340.7	290.3	327.9	304.3	412.0	317.2	440.5	370.2	400.2	445.3	405.0	383.8	4,437.3
1986	492.6	381.0	408.2										

Source: Chicago Mercantile Exchange

T.63

CATTLE AND CALVES

Beef Steer-Corn Price Ratio at Omaha[1]

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
1981	19.2	19.3	19.4	20.0	20.6	21.4	21.5	23.8	26.0	25.2	25.0	25.0	22.2
1982	24.6	25.9	26.5	26.5	27.2	26.5	26.1	29.2	27.5	27.7	25.1	25.2	26.5
1983	24.5	23.4	22.7	21.9	21.8	21.2	19.6	18.1	17.8	18.4	18.3	19.8	20.6
1984	21.6	22.1	21.1	20.4	19.7	19.1	20.4	20.7	21.3	22.5	24.6	25.6	21.6
1985	24.8	24.1	22.2	21.5	21.5	21.0	20.6	21.7	21.8	25.7	27.8	26.7	23.3
1986	25.6												

[1] Bushels of No. 2 Yellow Corn Equal in Value to 100 Pounds Liveweight of Choice Slaughter Steers, 900-1100 lbs. *Source: Economic Research Service, U.S.D.A.* T.56c

Farm Value, Income & Wholesale Prices of Cattle & Calves

Year	United States			At Omaha					Feeder Steers All Weights at K.C.	Cows, Utility Omaha	Vealers Choice So. St. Paul	Cows, Commercial Omaha	Beef, Dressed[4]		Cow[5] Canners[6]
	Farm Value of All Cattle—Jan. 1		Gross Income From C. & C.[2]		Steers[3]		Heifers								
	Per Head $	Total Million $	Million $	Prime	Choice	Good	Good	Choice					Steer Choice	Heifer Choice	
				Dollars Per 100 Pounds											
1980	502	55,831	32,083	N.A.	67.05	62.16	61.22	64.90	71.30	45.72	75.52	44.91	104.39	101.86	92.45
1981	475	54,292	30,183	N.A.	63.84	59.83	59.46	62.05	64.26	41.93	77.25	41.59	99.85	97.48	84.06
1982	415	47,967	30,482	N.A.	64.22	59.47	59.82	62.79	62.79	39.96	77.70	40.35	101.68	98.54	78.96
1983[1]	406	46,769	29,248	N.A.	62.52	56.99	56.75	61.45	61.39	39.35	72.97	39.41	97.87	94.45	78.48
1984[1]	396	44,976			65.33	59.14	58.73	64.59	63.11	39.81	63.98	40.75			
1985[1]	402	44,139			58.37	53.25	59.79	57.64	62.08	38.32	58.28	37.91			
1986	391	41,280													

[1] Preliminary. [2] Excludes interfarm sales & Gov't. payments. Cash receipts from farm marketings plus value of farm home consumption. [3] Weighted average prices of beef steers, sold out of first hands for slaughter. [4] Carlots. [5] All weights. [6] And cutter. *Source: Statistical Reporting Service, U.S.D.A.* T.60

Average Price Received by Farmers for Beef Cattle In Dollars Per 100 Pounds

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average[1]
1980	63.80	67.00	64.40	60.60	60.70	61.10	63.20	64.40	63.00	62.10	60.00	59.40	62.40
1981	60.40	59.40	58.20	61.00	60.50	61.40	60.50	59.70	58.80	55.70	54.50	52.00	58.60
1982	53.50	56.30	58.60	60.10	62.60	61.10	58.80	58.10	55.60	53.80	52.60	52.50	56.70
1983	54.30	57.10	59.70	61.00	59.90	58.30	55.80	54.20	52.30	51.70	51.20	54.50	55.50
1984	57.20	59.70	61.70	60.10	58.60	57.60	57.60	56.60	55.70	54.10	54.80	57.00	57.30
1985[2]	57.40	58.50	57.30	56.20	55.30	53.60	50.20	49.40	49.10	52.10	54.70	53.70	53.70
1986[2]	53.20	53.00	51.80										

[1] Weighted average by quantities sold. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.68

Average Price Received by Farmers for Calves In Dollars Per 100 Pounds

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average[1]
1980	86.90	90.90	82.60	75.50	75.40	76.90	75.40	75.60	74.30	73.90	72.10	70.30	76.80
1981	70.40	70.60	68.80	69.60	[illegible]	[illegible]	62.00	62.30	61.40	59.00	59.40	57.70	64.00
1982	57.00	58.90	61.90	62.10	[illegible]	[illegible]	60.40	61.80	59.00	58.30	58.10	58.80	59.80
1983	62.40	66.50	68.40	66.70	[illegible]	[illegible]	60.30	57.40	56.10	57.20	59.40	60.60	61.70
1984	61.10	63.90	63.70	62.30	60.80	59.20	59.10	59.10	56.60	58.20	59.40	59.40	59.90
1985[2]	64.10	65.40	65.90	65.40	65.60	62.60	60.00	61.40	58.30	60.20	61.40	58.80	62.10
1986[2]	60.10	62.80	62.60										

[1] Weighted average by quantities sold. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.69

Federally Inspected Slaughter of Calves & Vealers in the U.S. In Thousands of Head

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	212	187	201	185	161	154	186	182	198	229	185	214	2,294
1981	215	192	213	190	159	175	204	198	228	236	217	254	2,478
1982		702			609			692			726		2,729
1983	221	204	246	[illegible]	194	211	214	262	258	259	266	262	2,798
1984	253	236	264	226	233	218	258	294	245	282	275	247	3,030
1985[1]	270	236	261	252	246	221	274	272	271	298	268	298	3,168
1986	289	256											

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.67

Cement

U.S. demand for cement increased about 7 percent in 1985, primarily because of improved industrial, commercial, and residential construction activity, according to the U.S. Bureau of Mines.

The shortfall in domestic production compared to demand continued to widen in 1985 as the industry relied heavily upon imports to meet its requirements. Import reliance as a percent of apparent consumption rose to 15 percent. Cumulative imports for 1985 were 63 percent above 1984 imports.

The trend continued toward consolidation of the industry through acquisition by larger firms, most of which were foreign owned.

Domestic shipments of finished portland cement in 1985 were 4 percent larger than in 1984 and some 9 percent above the 5-year average. Shipments of prepared masonry cement were only marginally higher in 1985 than in the previous year, but 15 percent above the 5-year average.

The Bureau of Mines expects demand for cement to increase at an average annual rate of 2.0 percent through 1990 from a 1983 base. Domestic production in 1986 is expected to total 82 million tons and apparent consumption 92 million tons.

Average monthly prices for bulk cement in 20 cities, as reported in *Engineering News Record*, in 1985 peaked in May at $65.44 per short ton after posting the low for the year of $63.74 in January. The December 1985 average price of $64.98 compared with $63.74 for December 1984.

World Production of Hydraulic Cement by Selected Countries In Millions of Short Tons

Year	Belgium	Brazil	Canada	China	France	W. Germany	India	Italy	Japan	Poland	Spain	South Africa	Turkey	Un. Kingdom	United States	USSR	World Total
1981	7.4	28.7	11.2	92.6	34.1	37.7	22.9	45.8	93.5	15.7	31.7	8.9	16.6	14.0	72.9	140.2	977.2
1982	7.0	28.3	9.3	103.7	28.8	33.2	24.8	43.8	88.9	17.7	32.6	8.8	17.4	14.3	64.3	136.3	972.5
1983[1]	6.3	23.0	8.7	119.3	26.8	33.6	28.0	43.2	89.2	17.9	33.8	8.7	15.0	13.7	71.3	141.3	1,008.4
1984[2]	6.3	27.6	9.6	133.5	26.5	34.7	32.0	44.1	86.9	18.4	33.1	9.0	17.3	14.0	78.7	143.3	1,059.1
1985[2]				134.0	28.0	35.0		45.0	87.0		35.0			15.0	81.0	145.0	1,071.0

[1] Preliminary. [2] Estimate. *Source: Bureau of Mines* T.70

Salient Statistics of Cement in the United States

Year	Net Import Reliance as a % of Apparent Consumption	Production — Million Tons: Portland	Production: Others[2]	Production: Total	Capacity Used[3] %	Shipments From Mills: Total Mil. Tons	Shipments From Mills: Value[4] $ Mil.	Average Value (F.O.B. Mill) $ per Ton	Stocks at Mills Dec. 31 — Million Tons	Imports[5]	Exports[5]	Apparent Consumption	Raw Materials Used in Producing Portland Cement — Mil. Short Tons: Cement Rock	Limestone[6]	Clay & Shale	Gypsum & Anhy.	Total (All)
1981	4	68.9	2.8	71.7	66.9	71.7	3,723	51.89	7.4	4.0	.3	73.3	26.6	73.0	9.4		120.6
1982	5	61.1	2.3	63.4	58.7	64.1	3,264	50.94	6.8	2.9	.2	65.6	18.6	71.3	8.3	3.1	107.1
1983	6	67.5	2.9	70.4	64.6	70.9	3,543	49.95	6.7	4.2	.1	73.4	21.6	73.1	8.7	3.5	113.5
1984[1]	10	74.4	3.3	77.7	71.8	80.2	4,152	51.80	6.9	8.7	.1	84.3	27.0	78.5	9.1	4.0	124.8
1985[7]	15			80.0		83.8	4,489	53.57	6.7	14.0	.1	90.0					

[1] Preliminary. [2] Masonry, natural & pozzolan (slag-line). [3] At Portland-cement mills. [4] Value received f.o.b. mill, excluding cost of containers. [5] Hydraulic & clinker cement. [6] Including oyster shells. [7] Estimate. *Source: Bureau of Mines* T.71

Index of Wholesale Price of Portland Cement Base Per Ton 1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1981	324.3	324.2	324.3	332.4	332.3	330.9	331.5	331.5	331.9	330.2	330.2	330.2	329.5
1982	336.3	338.2	341.4	341.1	341.8	341.8	339.5	337.9	337.1	334.5	334.8	328.9	337.9
1983	326.4	332.4	330.2	339.1	339.6	340.9	340.5	346.3	347.9	346.8	340.5	340.5	339.1
1984	337.3	345.0	354.6	351.5	357.0	352.8	353.5	355.9	354.1	353.2	356.5	358.8	352.5
1985[1]	356.9	359.7	361.1	359.6	365.4	363.8	360.5	360.9	358.4	357.9	355.7	356.5	359.7

Source: Bureau of Labor Statistics (1322-0131.99) T.74

Shipments of Finished Portland Cement from Mills in the United States In Millions of Barrels

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total[1]
1981	20.7	20.8	30.2	35.2	34.2	38.1	38.9	37.5	37.3	36.3	29.6	23.5	382.7
1982	15.1	17.8	25.7	28.2	31.0	35.4	34.5	36.0	35.4	34.1	27.4	22.7	343.6
1983	18.9	17.7	25.4	28.4	33.6	39.4	37.3	41.9	39.5	39.1	32.8	22.2	376.9
1984[2]	20.4	25.6	29.2	34.3	41.5	43.1	42.1	46.9	39.9	43.3	36.5	25.7	435.8
1985[2]	21.8	21.7	31.7	39.4	44.2	42.6	45.9	46.9	43.3	46.0	33.2		

[1] Does not necessarily agree with monthly figures. These are compiled from producers' annual reports and are final. [2] Preliminary. *Source: Bureau of Mines* T.73

Cheese

Worldwide production of cheese during 1985, according to preliminary estimates, amounted to 9.6 million tonnes, up more than 3 percent from 1984. Although a quota system on diary production in the European Community lowered milk output there, the share of that production going into cheese rose at the expense of butter and non-fat dry milk. In the U.S., output in 1985 rose a lusty 8 percent above the figure for the prior year. For 1986 it was forecast that the EC would enlarge cheese's output by another 2 percent, again by increasing cheese's share of declining milk production. And unless the Food Security Act of 1985 were to cause a major reduction in the U.S.' milk output during 1986, it was expected that output of cheese in this country would rise substantially again.

While annual output of cheese in the U.S. continued to surge, demand slackened somewhat during 1985. Per capita consumption of all types of cheese fell to 22.9 pounds, which was roughly 1.6 percent below the figure for 1984; and per capita consumption of American cheeses declined by an estimated 2.4 percent. On the other hand, Italian cheeses—which account for 25 percent of all purchases of the product in the United States, rose in per capita consumption by nearly 3 percent. Also on the rise in usage were cheese substitutes, fortified by the milk protein casein. Lower in price than many types of natural cheese, the substitutes are increasingly being used in prepared foods, such as frozen pizza.

Prices paid to producers for natural and processed cheese fell modestly in 1985. The producers' price for Swiss cheese dropped by 2.4 percent, while producers' prices for processed cheese of all types diminished by 1.7 percent and prices of all sorts of natural cheese edged downward 1.1 percent. At the retail level, it was a very different pricing story: consumers' prices for all kinds of cheese were up in 1985 by an average of 2.5 percent, prices of natural cheddar climbed 1.2 percent, and prices of American processed cheese rose 1.6 percent. As a result, the value of product shipments of all types of cheese, including cheese substitutes, increased by a hefty 11.5 percent in 1985, compared with 1984. Broken down by category, the value of shipments of cheese substitutes went up 34.6 percent, cheese not specified by kind was also up 34.6 percent, processed cheese was up 5.1 percent, and natural cheese was up 12.0 percent.

Despite increased production and higher retail prices, the unsold commercial stock of American cheese declined to roughly 325 million pounds at 1985's end, down almost 5 percent from a year earlier. The commercial stocks of other kinds of cheese edged up slightly, from 98.6 million pounds in 1984 to an estimated 98.9 million pounds in late 1985. Governmental holdings of cheese were, thanks to daily price supports, much higher than the commercial holdings. Nevertheless, governmental stocks of American cheese fell in 1985 some 24 percent from their level in 1984, diminishing from 734 million pounds to 559 million pounds.

World Cheese (Total[1]) Production In Millions of Metric Tons[3]

Year	Argentina	Australia	Brazil	Canada	China	Czechoslovakia	Denmark	France	W. Germany	Italy	Netherlands	New Zealand	USSR	Sweden	Switzerland	United Kingdom	United States
1979	239	132		167	215	99	199	1,117	387	601	432	90	701	96	125	234	1,686
1980	245	154		177	270	109	221	1,146	421	615	443	106	648	101	125	237	1,807
1981	226	130	217	177		113	243	1,168	448	610	465	84	656	103	128	241	1,940
1982	229	153	220	170		120	245	1,200	462	645	481	112	699	108	129	244	2,060
1983	209	158	200	185		123	249	1,245	461	656	485	114	744	115	135	244	2,186
1984[2]	210	161	200	193		130	293	1,287	483	661	515	110	782	116	130	245	2,120
1985[3]	220	160	205	205		131	263	1,306	515	680	524	115	805	115	120	246	2,295

[1] Farm & factory production [2] Preliminary [3] Estimate *Source: Foreign Agricultural Service, U.S.D.A.* T.75

Supply and Distribution of All Cheese in the United States In Millions of Pounds

	Supply						Distribution							
	Production											Domestic Disapp.		
Year	Whole Milk[2]	All Cheese[3]	Jan. 1 Commercial Stocks	Imports[4]	Total Supply	Cheese 40-Lb. Blocks Wisc. Assembly Points ¢ per lb.	Exports & Shipments[5]	Jan. 1 Stocks	Dec. 31 Stocks	Amer. Cheese Removed by U.S.D.A. Programs	Total Disap.	Military	Civilian	Civilian Per Capita
1979	2,190	3,717	457	248	4,422		47	30	3	40	3,908	24	3,837	17.2
1980	2,376	3,984	513	231	4,728		46	3	169	350	4,038	16	3,976	17.6
1981	2,642	4,278	691	248	5,169	139.44	45	169	515	563	4,239	12	4,182	18.4
1982	2,750	4,542	976	269	5,677	138.27	85	515	647	643	4,722	15	4,633	20.1
1983[1]		4,820	1,065	286	6,171	138.28	94	647	793	833	4,904	18	4,792	20.6
1984[1]		4,674	1,267	306	6,267	137.96	78	793	621	447	5,185	18	5,088	21.7
1985[1]		5,009	1,062	303	6,374	127.72		621		629				22

[1] Preliminary. [2] Whole milk American cheddar. [3] All types of cheese except cottage, pot and baker's cheese. [4] Imports for consumption. [5] Commercial. *Source: Department of Agriculture* T.76

Cheese Production in the United States In Millions of Pounds

Year	American			Swiss, Including Block	Munster	Brick	Limburger	Neufchatel	Cream Cheese	Italian Varieties	Blue mold	All Other Varieties	Total of All Cheese[2]	Cottage Cheese		
	Whole Milk	Part Skim	Total											Low-Fat	Curd[4]	Creamed[5]
1976	2,049	5.0	2,054	196.3	55.3	19.3	1.9	3.6	164.4	747.4	33.9	44.4	3,320	135.4	711.1	875
1977	2,043	4.1	2,047	189.3	55.4	15.9	1.7	3.3	173.1	793.5	34.8	44.4	3,359	139.0	684.5	878
1978	2,074	4.9	2,079	209.4	59.3	16.9	1.6	3.9	194.3	875.7	35.3	44.2	3,520	153.1	688.4	871
1979	2,190	4.4	2,194	213.3	63.6	14.4	1.6	5.2	207.1	929.1	34.6	54.1	3,717	150.4	668.5	840
1980	2,376	5.4	2,381	218.9	70.0	15.4	1.6	4.3	224.3	982.7	33.0	52.9	3,984	179.8	667.4	825
1981	2,642	5.9	2,664	214.4	67.4	13.9	1.2	—241.3—		994.4	30.2	66.6	4,278	208.3	647.5	773
1982	2,752	6.9	2,759	221.1	71.7	14.3	1.5	—262.8—		1,087.8	31.0	92.4	4,542	217.6	628.9	749
1983[1]	2,928	4.1	2,932	209.5	69.6	14.2	1.1	—270.0—		1,200.2	31.5	90.6	4,820	215.7	617.9	742
1984[3]			2,648	2,026									4,674	—	962.6	—
1985[3]			2,854	2,155									5,009	—	965.4	—

[1] Preliminary [2] Excludes full-skim cheddar and cottage cheese [3] Estimated [4] Includes cottage, pot, and baker's cheese with a butterfat content of less than 4% [5] Includes cheese with a butterfat content of 4 to 19%. *Source: Agricultural Marketing Service, U.S.D.A.* T.77

Wholesale Price of American Cheese, Fresh Single Daisies at Chicago In Cents Per Pound

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
1976	118.2	108.2	113.8	116.6	114.6	115.3	120.0	125.8	118.3	114.2	114.0	114.0	116.1
1977	114.0	114.0	115.2	119.3	119.3	119.4	119.4	119.4	120.5	120.6	121.1	122.4	118.7
1978	122.9	124.1	124.6	125.9	125.9	125.9	126.0	132.1	134.0	139.4	140.0	141.0	130.1
1979	141.0	135.0	135.6	137.4	137.6	138.9	140.9	145.8	148.8	146.6	144.7	144.4	141.4
1980	146.7	147.2	150.8	153.5	154.2	154.8	155.5	157.0	161.5	165.3	164.1	164.1	156.2
1981	164.0	164.0	166.9	167.0	167.8	167.9	167.8	167.8	167.8	168.5	169.2	168.4	167.2
1982	168.4	168.4	168.4	168.4	168.4	168.4	168.4	168.4	168.3	168.6	168.6	168.6	168.4
1983	168.0	166.6	166.6	166.6	167.5	168.4	168.4	168.4	169.1	169.9	169.9	168.4	168.2
1984	168.9	168.9	168.9	168.9	168.9	168.8	170.0	172.1	175.9	174.4	169.9	169.1	170.4
1985	168.3	166.7	166.0	163.1	167.7	166.7	158.2	165.1	155.6	155.6	155.6	155.6	162.0
1986	155.6	155.6											

Source: Statistical Reporting Service, U.S.D.A. T.79

United States Total Cheese Production[1] In Millions of Pounds

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1977	265.6	252.5	299.7	304.7	326.1	316.0	280.2	275.7	251.7	256.9	247.8	281.6	3,359
1978	271.1	259.9	314.4	303.7	332.9	331.9	293.6	286.5	265.0	279.3	279.7	301.4	3,520
1979	292.5	272.2	323.0	318.8	340.4	343.8	318.8	309.0	290.7	308.0	289.4	308.7	3,717
1980	312.3	303.1	339.7	336.6	360.5	359.9	332.7	317.6	317.0	332.1	317.2	354.4	3,984
1981	342.8	317.8	374.1	379.5	394.2	390.9	353.0	340.6	334.4	343.4	334.1	372.7	4,278
1982	351.3	331.0	391.7	—	1,203	—	—	1,121	—	—	1,143	—	4,542
1983	384.8	359.3	425.3	413.1	439.4	444.7	402.1	381.3	373.0	391.9	389.3	415.4	4,820
1984	382.1	366.0	412.3	409.9	432.9	415.4	379.9	371.2	357.8	381.1	368.9	396.3	4,674
1985[2]	390.6	355.3	411.5	423.8	451.1	441.3	429.3	424.7	404.2	429.4	412.2	435.4	5,009
1986[2]	425.9												

[1] Excludes cottage and full skim American. [2] Preliminary. *Source: Statistical Reporting Service, U.S.D.A.* T.78

Cold Storage Holdings of All Varieties of Cheese in the U.S., on First of Month In Millions of Pounds[2]

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1976	367.8	362.3	362.3	367.9	393.7	436.1	483.7	509.0	518.0	522.6	501.4	482.0
1977	478.4	485.7	471.2	485.8	510.3	557.2	583.7	592.9	592.9	553.9	502.8	479.8
1978	468.6	459.6	442.0	430.0	447.1	462.5	500.2	498.5	489.7	476.6	455.2	431.0
1979	436.4	436.6	446.2	448.6	462.2	495.3	519.9	555.3	548.5	540.6	526.9	528.2
1980	512.1	515.8	508.9	495.1	510.5	544.4	582.7	620.0	613.8	610.6	590.9	565.4
1981	578.8	601.7	596.3	593.6	632.4	649.8	685.7	714.2	719.4	694.3	682.4	677.5
1982	709.6	711.7	696.4	722.4	—	—	803.9	—	—	864.3	—	—
1983	963.5	1,032	1,088	1,118	1,132	1,138	1,162	1,194	1,231	1,248	1,235	1,215
1984	1,205	1,201	1,220	1,217	1,182	1,208	1,193	1,186	1,148	1,115	1,078	1,044
1985[1]	986.2	968.9	944.4	907.7	898.6	911.0	963.5	962.9	941.0	891.8	877.5	
1986[1]	852.9	835.8	816.5									

[1] Preliminary [2] Quantities are given in "net weight." *Source: Crop Reporting Board, U.S.D.A.* T.80

Chromite

Production worldwide of chromite, the only source for commercial chromium, amounted in 1985 to an estimated 10.6 million short tons. Of that sum, the Soviet Union and the Republic of South Africa each contributed some 3.3 million tons, or more than 30 percent of total output. The other major producer is Albania, which yielded 1 million short tons in 1985, or roughly 9.5 percent of global production. It is estimated that there are 36 billion tons of shipping-grade chromite still unmined throughout the globe, enough at present rates of consumption to satisfy demand for centuries to come. Virtually all the resources in question are in southern Africa: about 70 percent are in the Republic of South Africa and 30 percent in Zimbabwe. The world's reserve base of shipping-grade chromite has lately been put at 7.5 billion short tons, 6.3 billion of which are in South Africa.

Most of the United States' resources of chromite are located in Montana and Oregon's beach sands. During 1985, however, there was no domestic output of chromite at all—nor is it thought likely that production will resume in the near future. All of 1985's domestic supply was imported or drawn down from the stockpile on hand. Imports amounted to 296,000 tons (two-thirds from southern Africa), down almost 15 percent from the figure for 1984, but well above the volume in 1982 and 1983. The year-end consumers' stock was 145,000 tons, about 5 percent smaller than it was at the preceding year's end. The federal government's stockpile of chromite was drawn down to the tune of 142,000 tons, for conversion into high-carbon ferrochromium. Recycling of chromium contained in stainless steel scrap was estimated to have satisfied 27 percent of 1985's aggregate demand for the metal.

Total domestic consumption came to 381,000 tons, up 21 percent from 1984. Chromite was used by four firms that produce chromium ferroalloys and metal, seven firms producing refractions, and two firms producing chromium chemicals. As these details suggest, nearly seven-eighths of chromite's consumption is by the chemical and metallurgical industry, the rest by the refractory industry. Distributed according to end-usage, the materials created from chromite went into stainless and heat-resisting steel (78 percent of consumption), full-alloy steel, 10 percent; super-alloys, 4 percent; and other alloys, 8 percent.

Despite higher demand in 1985 than in 1984 for chromite and chromium, prices of these products were unchanged to lower. The published price for Turkish high-chromium chromite was steady at $110 per ton, while the price of South African high-iron chromite fell from a range of $48 to $52 per ton in 1984 to $40–$42 in 1985. The price of chromium metal was unchanged for 1985, at $3.75 per pound.

The outlook for 1986 was that consumption of chromium in the U.S. would be modestly higher, on the order of 2.5 percent. As in 1985, there will be no domestic production of chromite, so heavy reliance will be put upon imports. Over the longer term, demand is projected to grow at an average annual rate of 6.5 percent through 1990.

World Mine Production of Chromite In Thousands of Short Tons

Year	Albania	Brazil	Cuba	Finland	Greece	India	Japan	Pakistan	Philippines	Zimbabwe	Turkey	South Africa	Iran	USSR	Madagascar	World Total[1]
1977	970	342	22	443	46	389	20	9	593	746	560	3,372	257	2,400	182	10,415
1978	1,090	1,056	32	449	41	293	10	12	595	527	420	3,466	218	3,640	152	12,064
1979	827	375	31	480	50	342	13	3	613	597	410	3,634	150	2,535	141	10,277
1980	840	345	31	399	46	352	15	3	547	610	411	3,763	90	3,200	198	10,915
1981	960	261	23	454	32	369	12	2	484	591	466	3,164	35	3,200	110	10,224
1982	960	304	30	380	34	374	12	3	355	476	449	2,385	45	3,240	49	9,193
1983[2]	990	304	37	271	30	465	9	6	294	476	564	2,460	55	3,240	50	9,387
1984[1]	960	310	41	280	30	485	7	7	300	500	670	3,314	55	3,300	66	10,468
1985[1]	1,000	300		300		500			300	500	700	3,300		3,300		10,600

[1] Estimate. [2] Preliminary. *Source: Bureau of Mines*

T.81

U.S. Salient Statistics of Chromite In Thousands of Short Tons

						Consumption by Primary Consumer Groups (Gross Weight)				Stocks, Dec. 31				$ Per Metric Ton	
Year	% Net Import Reliance of Apparent Consumption	Shipments from Gov't Stockpiles	Exports	Imports (For Consumption)	Re-exports	Total	Metallurgical	Refractory	Chemical	Metallurgical	Refractory	Chemical	Total Stocks	South Africa[2]	Turkish[4]
1977	91	517	187	1,293	61	1,000	578	208	214	900	174	264	1,338	59	137
1978	91	—	23	1,013	29	1,010	534	237	239	755	185	361	1,301	56	105
1979	90	—	27	1,024	28	1,214	774	198	242	416	161	330	907	56	110
1980	91	—	6	982	44	977	577	160	240	219	135	322	675	55	110
1981	90	—	71	898	67	889	503	148	238	230	128	370	728	55	110
1982	85	—	8	507	57	558	283	80	195	120	113	313	546	52	110
1983	76		11	190	5	320	64	72	184	140	76	239	456	52	110
1984[1]	81		55	305	4	512	226	97	189	24	70	233	327	52	110
1985[3]	73		14	290		500							310	42	110

[1] Preliminary. [2] Cr_2O_3, 44% (Transvaal). [3] Estimate. [4] 48% $Cr_2$03. *Source: Bureau of Mines*

T.82

Coal

Total output of coal in the U.S. was 890 million tons in 1985, the highest volume ever produced. Consumption of coal rose in 1985 about 5 percent from its level in the prior year.

The chief source of demand for coal came from electric utilities, where consumption of the product nearly doubled between 1972 and 1985. Changes in usage by other major consumers have been mixed: coke plants consumed 43.1 million tons in 1985, as against 87.7 million in 1972, a drop of 51 percent; "other industrial and transportation" users increased usage from 73 million tons in 1972 to 76.5 million tons in 1985; and residential and commercial consumption fell from 11.7 million tons in 1972 to only 8.5 million tons in 1985, a reduction of more than 27 percent. Exports of U.S. coal, which had surged to over 100 million tons in 1980 and 1981, continued their subsequent decline in 1985, ending the year at 76 million tons.

Early forecasts of output and consumption in 1986 were constructive. Production was projected to increase by nearly 3 percent and consumption to grow by 2.3 percent. Both projections were made, however, before the dramatic slide in crude oil prices.

World Production of All Coal[3] In Millions of Metric Tons

Year	Australia	E. Germany	Canada	Czechoslovakia	France	W. Germany	Greece	India	Japan	China	Poland	South Africa	Un. Kingdom	United States	U.S.S.R.	Yugoslavia
1982	135	276	43	125	20	224	27	135	18	635	227	137	125	761	647	55
1983	143	278	45	129	20	214	30	142	17	688	234	139	119	712	642	59
1984[2]	160	296	57	131	19	211	32	152	17	736	242		51	808	637	59
1985[1]	165	300	60	128	17	208	33	155	15	750	246		55	800	650	60

[1] Estimate. [2] Preliminary. [3] Includes anthracite, subanthracite, bituminous, subbituminous, lignite & brown coal. *Source: United Nations* T.83

Bituminous Coal Production[1] in the United States In Millions of Short Tons

Year	Jan	Feb	Mar	Apr.	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1981	65.6	70.4	77.7	35.8	37.8	61.1	73.5	78.2	81.3	84.8	76.0	76.0	818.4
1982	66.8	70.6	83.4	73.3	70.8	71.4	60.2	72.5	67.6	70.5	63.7	62.7	833.5
1983	62.5	60.4	68.6	61.6	62.9	61.4	54.9	72.9	69.9	71.3	68.3	63.4	778.0
1984	67.9	73.7	81.6	71.7	79.8	75.3	73.9	89.7	78.0	68.6	63.4	62.6	886.2
1985[2]	68.0	67.0	77.7	76.5	78.2	73.0	69.0	79.5	73.8	80.1	69.3	70.0	882.2
1986[2]	74.2												

[1] Includes small amount of lignite. [2] Preliminary. *Source: Bureau of Mines* T.88

Pennsylvania Anthracite Coal Production[1] In Thousands of Short Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1981	305	472	548	437	271	472	566	534	417	457	550	394	5,423
1982	386	416	502	299	360	349	355	415	348	375	373	410	4,588
1983	277	260	343	285	293	352	309	400	385	414	412	359	4,089
1984	284	249	278	228	377	293	384	435	423	349	332	323	3,954
1985[2]	282	279	329	249	335	420	338	340	316	371	321	328	3,907
1986[2]	306												

[1] Represents production in Pennsylvania only. Production outside which is small, is included in Bituminous Production series. [2] Preliminary. *Source: Bureau of Mines* T.92

U.S. Stocks of Bituminous Coal for All Industrial & Retail Dealers, at End of Month In Million Short Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1981	193.6	192.9	202.2	181.9	162.9	153.0	149.0	151.7	159.4	169.7	177.4	179.6
1982	168.4	167.7	173.9	180.8	187.2	192.7	184.2	184.4	184.0	189.0	190.6	189.1
1983	185.7	185.4	186.1	187.2	190.8	190.7	174.9	168.6	167.2	172.6	172.7	162.1
1984	156.4	163.0	167.7	175.3	184.7	187.4	186.0	193.5	201.3	200.4	195.3	190.4
1985[1]	176.7	170.2	172.5	177.9	180.5	181.3	172.1	168.8	168.8			

[1] Preliminary. *Source: Bureau of Mines* T.87

Average Wholesale Price of Bituminous[1] Coal (Screenings, Industrial Use) Index—1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1982	520.6	525.3	525.0	527.9	529.6	529.3	533.9	534.9	534.4	533.9	535.5	534.6	530.4
1983	531.5	529.2	534.6	534.3	532.0	530.8	531.3	533.2	534.6	534.9	539.1	540.7	533.8
1984	538.1	541.5	543.1	538.9	544.4	541.1	545.1	547.0	546.1	545.9	545.6	544.6	543.5
1985[2]	544.8	546.4	545.6	544.5	545.1	544.3	546.7	547.0	545.6	540.4	537.6	536.5	544.2
1986[2]	537.6	534.3											

[1] Prices are for Screenings, industrial use, f.o.b. mine. [2] Preliminary. *Source: Bureau of Labor Statistics (0512)* T.90

Salient Statistics of the Bituminous Coal Industry in the United States

Year	Production			Value		Number of Mines	Thous of Men Employed	Avg. Tons Per Miner Per Hr.			Imports	Exports to:			
	Underground	Surface	Total Production	Total Million $	Avg. Per Ton $			Underground	Surface	Total		Grand Total	Canada	Europe	Asia
	Millions Net Tons										(Thousands of Short Tons)				
1980	337	487	824	21,580	24.52	5,598	224.9	1.21	3.27	1.94	1,194	89,882	17,039	40,414	25,481
1981	316	503	818	21,505	26.29	5,569	226.3	1.29	3.50	2.11	1,043	110,243	17,856	56,130	31,010
1982	338.6	495.0	833.5	22,621	27.14	5,363	214.4	1.37	3.48	2.14	742	105,244	18,205	51,211	29,957
1983	299.9	478.1	778.0	20,111	25.85	4,265	173.5	1.62	3.87	2.52	1,271	76,870	16,809	32,979	21,895
1984[1]	351.5	540.3	891.8	22,750	25.51	4,902	175.7	1.72	4.10	2.65	1,286	80,793	20,140	32,766	21,306
1985[2]			882.2								1,952	91,361	16,112	44,677	21,803

[1] Preliminary. [2] Estimate. *Source: Energy Information Administration*

T.84

United States Production of Coal by Principal States In Millions of Short Tons

Year	Anthracite Pennsylvania	Bituminous													Total U.S.
		Alabama	Colorado	Illinois	Indiana	Kentucky	Montana	Ohio	Pennsylvania	Virginia	West Virginia	Tennessee	Wyoming	Total Bituminous	
1980	6.1	26.4	18.8	62.5	30.9	150.1	29.9	39.4	87.1	41.0	121.6	9.9	94.9	823.6	829.7
1981	5.4	24.5	19.9	51.9	29.3	157.6	33.6	37.4	78.1	42.0	112.8	10.5	103.0	818.4	823.8
1982	4.6	26.6	18.3	60.3	31.8	150.2	27.9	36.5	74.8	39.8	128.5	7.5	108.4	833.5	838.1
1983	4.1	23.8	16.7	56.8	31.8	131.2	28.9	33.8	65.7	35.0	115.0	6.6	112.2	778.0	782.1
1984[2]	4.2	27.1	18.0	63.8	37.6	159.5	33.0	39.3	73.3	40.4	131.0	7.3	130.9	891.8	895.9
1985[1]	3.9	26.4	17.1	62.5	34.5	161.8	32.5	36.0	62.2	44.3	127.3	7.6	137.8	882.2	886.1

[1] Estimate. [2] Preliminary. *Source: Bureau of Mines*

T.85

U.S. Consumption & Stocks of Bituminous Coal & Lignite In Millions of Short Tons

Year	Stocks—Dec. 31						Consumption						
	Electric Power Utilities	Oven Coke Plants	Steel & Rolling Mills	Other Industrials	Producers & Distrib.	Total	Electric Power Utilities	Coke Plants: Beehive	Coke Plants: Ovens	Steel & Rolling Mills	Other Industrials	Retail Deliveries[2]	Total
1980	178.3	9.0	—11.8—		23.9	223.0	568.3	——66.5——		—59.3—		4.9	699.1
1981	163.4	6.4	— 9.8—		23.8	203.4	595.6	——60.9——		—66.6—		5.4	728.5
1982	175.1	4.6	— 9.4—		36.1	225.2	592.6	——40.9——		—63.5—		6.6	703.6
1983	149.1	4.3	— 8.6—		33.4	195.4	624.2	——37.0——		—65.6—		7.1	733.9
1984[3]	173.0	6.2	—11.2—		33.5	223.9	663.3	——44.0——		—73.2—		7.7	788.2
1985[3]	149.2	3.4	—10.4—		32.7	195.7	692.8	——41.0——		—74.8—		6.5	815.1

[1] Preliminary. [2] To other consumers. (Residential & Commercial) [3] Estimate. *Source: Energy Information Administration*

T.86

Statistical Trends in the Pennsylvania Anthracite Industry

Year	Production (Millions of Net Tons)			Value of Production Million $	Avg. Value Per Net Ton	Stocks (Dec. 31)		Exports to:					Apparent Consumption	Avg. No. of Men Working Daily (1,000)	Number of Mines	Avg. Tons Per Miner Per Hr.
	Total	Surface	Underground			Electric Utilities	Prod. & Distrib.	Total	Canada	France	Netherland	South Korea				
						(1,000 Short Tons)										
1980	6.1	5.5	.6	259.3	42.51	4,741	432	1,795	421	266	127		3,667	3.6	306	1.11
1981	5.4	4.8	.6	239.1	44.28	5,537	370	2,249	361	77	22		4,084	3.1	232	.92
1982	4.6	4.0	.6	229.3	49.85	6,080	672	980	316	57	—	550	3,349	2.7	220	.59
1983	4.1	3.6	.5	214.4	52.29	6,507	498	776	296	58	30	357	2,823	2.1	224	1.01
1984[1]	4.2	3.6	.6	202.5	48.22	6,710	565	680	301	—	52	292	3,092	2.1	149	1.02
1985[2]	3.9					7,189	416	1,286	277	19	32	535	2,914			

[1] Preliminary. [2] Estimate. *Source: Energy Information Administration*

T.91

Average Wholesale Price of Anthracite Coal (Chestnut—F.O.B. Mine) Index—1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1980	435.7	435.7	435.7	459.7	459.7	459.7	462.1	469.8	478.2	479.6	491.1	497.9	463.7
1981	508.7	542.9	542.8	545.2	552.8	572.0	589.7	597.3	619.9	629.1	642.5	643.7	582.2
1982	643.7	643.7	645.5	648.1	639.0	637.5	637.5	637.4	637.4	637.4	638.0	638.0	640.3
1983	636.0	635.9	634.2	621.7	603.1	605.1	613.3	610.4	610.4	610.4	612.0	612.3	617.1
1984	612.2	612.0	611.2	610.4	611.1	610.8	610.8	610.8	610.8	610.8	610.2	614.7	611.3
1985[1]	615.0	615.0	615.0	614.9	614.9	614.8	614.8	614.8	615.2	615.5	622.9	622.9	616.3
1986[1]	623.3	623.9											

[1] Preliminary. *Source: Bureau of Labor Statistics (0511-0101.02)*

T.89

Cobalt

World mine production of cobalt was estimated to have fallen 2 percent in 1985 as reductions in output by Zaire offset increases in other countries. Zaire accounts for more than half of world output, while Zambia, the USSR, and Australia are other major producers. Most cobalt production is from stratabound copper deposits (found in Zaire and Zambia), nickel-copper sulfide deposits (Canada and the USSR), and laterite deposits (Australia). Currently, there is a world surplus of cobalt, with producers holding most of the stocks, and this condition was expected to persist in 1986.

There has been no U.S. mine production of cobalt since 1971, although some secondary cobalt is derived from recycled carbide scrap and spent catalysts. The U.S. has a large reserve base of cobalt, but under current conditions, mining is uneconomic. The most profitable cobalt producing area was a district in Idaho, which has not been mined since 1959. The only domestic cobalt refiner, located in Louisiana, was scheduled to close operations in late 1985.

U.S. imports of cobalt, which come largely from Zaire, Zambia, and Canada, were estimated to have fallen about 30 percent in 1985. The U.S., which also exports some cobalt, shipped about 11 percent less to foreign customers in 1985 than in 1984. Apparent domestic cobalt consumption retreated about 16 percent in 1985, after having expanded in the two previous years. Reported consumption in 1985 was divided as follows: superalloys (mostly for industrial and aircraft gas turbine engines), 37 percent; magnetic materials, 17 percent; driers, 10 percent; catalysts, 10 percent; metal cutting and mining tool bits, 6 percent; and others, 20 percent. The U.S., in recent years, has accounted for about one-third of total world consumption. Carryover stocks held by U.S. industries in 1985 were preliminarily estimated by the Bureau of Mines as 40 percent below the 1984 level.

The General Services Administration holds stockpiles of cobalt, which were 25,096 short tons on September 30, 1985, 41 percent below the government stock goal of 42,700 tons. In 1985, the government imported 500 tons of Zambian cobalt and 250 tons of Canadian cobalt to add to the stockpile. Reportedly, much of the cobalt in the stockpile does not meet the specifications of strategic applications (mainly, use by superalloy producers).

The U.S. spot price of cathode cobalt was around $11.50 per pound for most of the year. Prices fluctuated less than usual as producers attempted to bring some stability to the market. Prices in 1985 were well below levels in the late 1970s, when a fear of tight supplies because of the political situation in Zaire caused prices to soar.

U.S. demand for cobalt is likely to grow by an average 3 percent a year from a 1983 base through 1990, according to the Bureau of Mines.

Other than nickel, there are few effective substitutes for cobalt. Adequacy of future U.S. cobalt supplies is largely dependent on political and economic conditions in foreign producing countries. Identified world cobalt resources are placed by the Bureau of Mines at 12 million tons, found in nickel-bearing laterite deposits, nickel-copper sulfide deposits, and sedentary copper deposits. In addition, vast hypothetical resources exist in nodules and crusts on the ocean floor.

World Mine Production of Cobalt In Short Tons of Recovered Cobalt Content

Year	Australia	Zaire	USSR	France[3]	Canada	Cuba	Philippines	Finland	W. Germany[3]	Japan[3]	Norway[3]	Morocco	Zambia	New Caledonia	World Total
1980	2,177	17,000	2,300	745	1,767	1,778	1,467	1,141	330	3,160	1,405	924	4,850	395	34,538
1981	1,616	17,000	2,400	493	2,293	1,890	1,099	1,140	160	2,669	1,592	870	4,410	407	33,895
1982	1,631	12,460	2,500	545	1,548	1,650	516	1,026	160	2,141	1,094	770	3,584	299	26,754
1983[1]	1,500	12,460	2,600	—	1,747	1,820	639	1,000	110	1,512	996	—	3,527	300	26,445
1984[2]	1,400	18,700	2,900	—	2,200	1,690	140	1,000	110	998	990	—	5,090	280	35,635
1985[2]	1,500	18,000	3,000		2,200	1,800	400	1,000					5,000	300	35,100

[1] Estimate. [2] Preliminary. *Source: Bureau of Mines* T.93

U.S. Salient Statistics of Cobalt In Thousands of Pounds of Contained Cobalt

Year	Net Import Reliance as a % of Apparent Consumption	Cobalt Pdt's Production	Consumer Stocks Dec. 31	Imports for Consumption	Consumption By End Uses											Price $ Per Pound[3]
					Steel Full Alloy	Stainless & Heat Resisting	Catalysts[4]	Super-Alloys	Tool Steel	Magnetic Alloys	Nonferrous Alloys	Drier in Paints, etc.[5]	Cutting & Wear-Resistant Mater.	Welding & Hard Facing Rods	Total	
1980	93	3,274	2,540	16,302	116	47	1,656	6,285	321	2,267	150	1,331	1,344	620	15,321	25
1981	92	3,302	1,411	15,594	141	35	1,279	4,195	170	1,687	131	1,378	1,076	488	11,680	14.58
1982	92	2,863	1,327	12,870	114	51	789	3,319	161	1,544	175	1,114	638	446	9,468	8.56
1983	95	3,232	1,441	17,221	82	54	1,064	4,034	248	1,711	169	1,503	666	472	11,319	5.76
1984[1]	95	3,499	1,368	25,310	31	74	1,296	4,766	353	2,209	176	1,258	831	399	12,994	10.40
1985[2]	95		1,000	17,800	90	76	1,250	4,700	315	2,500	100	1,700	820	600	13,500	11.50

[1] Preliminary. [2] Estimate. [3] Annual spot for cathodes. *Source: Bureau of Mines* T.94

Cocoa

The world's production of cocoa beans in the 1985–1986 season has been estimated by the USDA at 1.88 million metric tons, down about 3 percent from 1984–1985. Roughly 28 percent of that output will originate in the Ivory Coast, 21 percent in Brazil, and 11 percent in Ghana; the remainder will come from a large number of countries throughout the tropical half of the globe. Sharp reductions in output are likely in Ecuador (off 14 percent from 1984–85) and Nigeria (off 30 percent).

Cocoa-bean grindings were at an all-time record high in 1985, amounting to 1.8 million metric tons. In West Germany they rose 7 percent over 1984's level, in the Netherlands nearly 4 percent, and in the United Kingdom approximately 2 percent. In the United States, by contrast, grindings declined about 6 percent.

U.S. imports of cocoa and its products rose in both volume and value in 1985, compared with 1984. Measured by volume, intake of cocoa beans, unsweetened and sweetened chocolate, cocoa butter, and sweetened and unsweetened cocoa totaled 565 thousand tons in 1985, up 19 percent for the year. Measured by value, imports in 1985 came to $1.35 billion, about 21 percent above the comparable figure for 1984. Particularly large gains were registered by volume for cocoa beans (+39 percent) and certain types of sweetened chocolate (+63 percent for one, +44 percent for another), while steep declines characterized imports of confectioners' coatings (off 52 percent), cocoa-bean shells (off 39 percent), and cocoa-bean waste (off 31 percent).

Exports of cocoa beans and products from the U.S. were significantly smaller in 1985 than 1984. By value, they fell roughly 14 percent; by volume, the drop was 17 percent. Sales abroad were lower by volume in every category of product, save cocoa and chocolate confectionery, which rose a modest 5 percent. Otherwise, the reductions ranged from 19 percent for cocoa butter to 45 percent for sweetened chocolate. Similarly, re-exports by the U.S. were lower in 1985 than the year before: by volume, the decline was around 23 percent, by value 19 percent.

Largely because the 1984–1985 cocoa crop was large, relative to worldwide demand, prices during 1985 were markedly lower than in the preceding year. The average price throughout much of 1985 was about $.99 per pound or $2,172 per metric ton, compared with $1.06 per pound or $2,342 per tonne the year before.

The outlook for 1986 was for further slippage in prices. One reason is that output was expected again to outpace consumption. Another version was that there is a strong possibility that the International Cocoa Agreement will not be renewed when it expires in September 1986. Should that come to pass, the ICA's buffer stock of 100,000 metric tons would have to be liquidated, possibly over a period of time.

Futures Markets

Cocoa futures are traded on the Coffee, Sugar & Cocoa Exchange in New York, the London Terminal Market, and also in Paris.

World Cocoa Supply and Demand In Thousands of Metric Tons

Crop Year[1]	Stocks Oct. 1	Net World Crop[2]	Total Availability	Seasonal Grindings	Closing Stocks	Stock Change	Crop Year[1]	Stocks Oct. 1	Net World Crop[2]	Total Availability	Seasonal Grindings	Closing Stocks	Stock Change
1978–9	390	1,478	1,868	1,457	411	+ 21	1982–3	703	1,515	2,218	1,617	601	−102
1979–0	411	1,610	2,021	1,488	533	+122	1983–4	601	1,495	2,096	1,722	374	−227
1980–1	533	1,644	2,177	1,589	588	+ 55	1984–5[3]	374	1,912	2,286	1,786	500	+126
1981–2	588	1,711	2,299	1,596	703	+115	1985–6[4]	500	1,866	2,366	1,816	550	+ 50

[1] Crop year season is OCT.–SEPT. [2] The Net World Crop is obtained by adjusting the Gross World Crop for one per cent loss in weight. [3] Preliminary. [4] Forecast. *Source: Gill and Duffus, Ltd.* T.95

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World Production of Cocoa Beans in Principal Producing Countries In Thousands of Metric Tons

Crop Year (Oct.-Sept.)	Brazil	Cameroon	Colombia	Dominican Rep.	Ecuador	Equatorial Guinea[1]	Ghana	Indonesia	Ivory Coast	Malaysia	Mexico	Papua New Guinea	Nigeria	Sao Tome & Principe	Trinidad & Tobago	Venezuela	World Total
1980–1	351	120	36	33	85	8	258	13	417	49	30	27	160	7	3	14	1,694
1981–2	315	120	39	43	88	8	225	17	465	61	41	29	183	5	3	15	1,736
1982–3	339	106	40	43	55	9	179	20	360	68	34	29	160	5	2	15	1,542
1983–4	309	109	41	42	55	9	159	24	411	90	36	28	123	3	2	12	1,536
1984–5[3]	415	120	42	41	128	8	173	30	552	100	39	30	165	4	2	13	1,945
1985–6[2]	395	115	42	43	110	8	200	35	525	120	40	30	115	4	2	15	1,880

[1] Includes Fernando Po & Rio Muni [2] Forecast [3] Preliminary *Sources: Foreign Agricultural Service, U.S.D.A.* T.96

World Absorption (Consumption) of Cocoa[2] In Thousands of Metric Tons

Year	Japan	Australia	Belgium	Brazil	Canada	Colombia	France	W. Germany	Netherlands	Spain	Italy	Switzerland	USSR	United King	United States	World Total
1980	25	11	23	200	12	31	48	158	133	35	34	17	130	65	142	1,510
1981	29	12	29	195	17	35	52	167	141	37	35	18	120	85	190	1,596
1982	32	9	29	170	16	38	52	175	148	37	39	18	130	88	199	1,603
1983	34	8	33	198	16	39	53	180	157	38	36	18	145	77	194	1,649
1984[1]	34	6	36	214	22	38	52	194	161	35	40	19	150	90	209	1,752
1985[3]	34	2	37	234	20	38	40	207	167	35	45	20	160	91	205	1,812
1986[4]	34	2	37	240	20	38	42	200	170	35	50	20	160	95	205	1,831

[1] Preliminary [2] Figures represent the "absorption," "disappearance" or "grindings" of cocoa beans in each country—in other words, net imports of cocoa beans adjusted for changes in stock. [3] Estimate [4] Forecast *Source: Gill & Duffus, Ltd.* T.98

World Exports of Cocoa Beans by Principal Producing Countries In Thousands of Metric Tons

Year	Brazil	Costa Rica	Dominican Repub.	Ecuador	Equatorial Guinea	Cameroon	Ghana	Malaysia	Ivory Coast	Papua New Guinea	Nigeria	Sao Tome & Principe	Trinidad & Tobago	Venezuela	Togo	Grand Total
1980	123.6	2.2	23.4	14.1	6.0	80.5	218.6	30.6	305.3	28.8	133.9	7.0	2.1	7.8	14.5	1,046
1981	125.2	2.0	27.3	24.1	7.5	82.4	180.9	42.4	437.2	27.8	109.0	6.0	3.0	8.0	17.2	1,146
1982	143.5	1.9	38.2	38.0	7.5	66.4	217.1	57.7	326.3	28.2	136.7	6.0	2.4	9.5	10.1	1,138
1983	152.8	.7	38.3	7.0	8.0	80.1	177.3	57.2	286.4	26.3	152.3	3.1	2.0	9.5	9.5	1,076

[1] Preliminary. *Source: Foreign Agricultural Service, U.S.D.A.* T.100

Raw Cocoa Grindings in Selected Countries In Thousands of Metric Tons

Year	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
	France					Germany (West)					Holland				
1980	43.1	12.5	10.9	9.1	10.7	151.2	40.2	35.4	32.9	42.6	132.6	35.1	31.4	29.5	36.7
1981	47.0	12.6	12.0	9.6	12.9	159.4	41.7	37.6	35.4	44.7	141.0	36.0	34.3	32.7	38.0
1982	45.5	13.1	12.3	9.7	10.4	167.0	45.1	39.9	35.8	46.3	148.4	38.4	34.9	33.7	41.3
1983	47.6	12.2	12.9	10.9	11.7	179.5	45.7	41.0	43.0	49.8	156.9	40.5	37.9	35.2	43.4
1984	47.2	14.0	12.5	11.1	9.7	193.5	49.9	48.6	42.4	52.6	161.4	44.4	40.0	35.0	42.1
1985[1]		12.4	10.6	8.3		206.8	57.0	51.7	44.0	54.0	167.4	44.6	41.7	37.0	44.1
	Italy					United Kingdom					United States				
1980	33.8	8.0	8.4	8.1	9.3	65.3	15.5	16.1	15.5	18.2	142.2	33.5	31.5	34.9	42.4
1981	35.1	8.6	8.1	5.8	12.6	85.3	21.7	21.3	19.2	23.1	190.2	48.4	46.0	48.8	47.1
1982	39.2	9.6	10.1	6.0	13.6	88.1	25.3	21.1	19.6	22.1	199.1	47.7	50.6	50.1	50.7
1983	36.4	8.4	7.9	8.1	12.0	76.7	19.8	18.1	17.4	21.3	193.6	45.9	46.7	47.8	53.2
1984	39.8	8.0	5.6	9.8	16.5	89.6	22.3	21.9	21.1	24.2	164.4	42.4	41.6	40.9	39.5
1985[1]		11.1	10.5	8.8		91.3	26.5	24.5	20.0	20.3	153.8	39.0	37.5	40.5	36.8

[1] Preliminary. *Source: Gill and Duffus, Ltd.* T.97

COCOA

Imports of Cocoa Butter—Selected Countries In Metric Tons

Year	Argentina	Australia	Austria	Belgium	Canada	Finland	France	West Germany	Italy	Japan	Netherlands	Norway	Sweden	Switzerland	UK	USA	USSR	Yugoslavia
1980	1,868	4,532	2,485	12,388	3,717	2,057	14,285	22,790	1,211	6,264	16,445	1,855	4,155	9,117	29,597	34,658	—	1,054
1981	1,923	4,410	3,461	11,960	4,505	2,228	14,170	29,358	1,667	10,352	11,021	1,875	4,234	10,208	19,549	43,196	—	1,965
1982	1,734	5,419	3,382	12,281	4,860	2,333	14,008	30,564	1,631	10,615	16,225	2,083	4,451	9,982	25,820	37,325	—	1,009
1983	720	6,067	3,535	12,128	5,313	2,428	16,690	30,581	2,151	9,947	20,224	1,892	4,704	10,224	31,581	47,981		653
1984[1]	1,175	6,445	3,763	13,451	5,437	2,156	17,325	35,241	2,337	8,436	25,072	2,139	5,103	9,798	30,203	51,711	4,200	248
1985[2]		8,538	3,682	15,416	5,535	2,039	19,908	33,378	2,500	8,632	24,595	1,957	4,929	11,175	31,372	70,146		

[1] Preliminary. [2] Estimate. *Source: Gill & Duffus Group PLC* T.97a

Imports of Cocoa Liquor (Selected Countries)—In Metric Tons—Imports of Cocoa Powder (Selected Countries)

Year	France	West Germany	Netherlands	Poland	UK	USA	USSR	Belgium	France	West Germany	Italy	Japan	Netherlands	Sweden	UK	USA
1978	16,282	741	3,901	7,485	3,859	43,679	—	3,079	3,529	6,912	3,955	1,558	2,096	2,469	1,022	79,263
1979	15,872	795	4,136	25,755	4,784	47,828	5,000	3,642	4,368	10,846	5,266	2,215	2,970	2,656	1,747	64,080
1980	15,688	1,922	7,634	23,822	1,928	43,796	5,200	3,335	5,905	10,693	6,142	2,656	3,018	3,457	1,885	65,606
1981	15,457	2,151	9,262	26,835	1,914	33,109	16,000	3,503	7,963	12,935	6,478	2,616	3,255	3,551	2,393	77,879
1982	13,871	2,196	13,519	12,642	2,283	31,419	8,700	3,770	7,609	13,524	6,673	2,832	2,974	3,872	3,284	60,563
1983	15,164	2,288	14,216	20,442	3,829	45,477	15,425	3,895	8,527	13,886	7,964	3,157	3,009	3,806	3,014	78,968
1984[1]	20,268	3,075	13,622		2,184	45,547	32,000	4,204	9,652	13,554	7,462	3,260	3,574	3,996	3,654	89,978
1985[2]	24,031	3,570	14,822		3,400	53,042		4,586	8,269	16,624		3,841	4,669	3,928	2,591	81,775

[1] Preliminary. [2] Estimate. *Source: Gill & Duffus Group PLC* T.97b

United States Imports of Cocoa (Includes Shells) In Thousands of Long Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1978	19.4	20.3	27.9	20.5	16.5	12.4	16.1	14.7	7.3	15.9	18.6	20.2	209.7
1979	27.3	26.7	14.6	12.8	8.8	13.7	11.8	15.7	5.7	10.1	10.0	8.0	165.2
1980	11.1	9.2	8.0	19.5	15.4	12.0	16.9	9.6	8.2	9.6	9.4	19.9	148.5
1981	13.5	27.8	19.2	30.4	27.1	24.1	19.3	22.0	20.3	24.1	5.8	11.5	245.0
1982	10.0	29.0	17.6	15.3	16.8	11.9	13.0	20.3	14.3	14.4	14.4	17.4	194.2
1983	46.0	42.7	19.0	36.4	14.4	11.1	9.6	7.2	6.1	5.3	7.7	8.2	181.0
1984[1]	15.5	21.3	28.7	16.9	24.7	15.3	13.3	10.8	10.4	5.0	10.8	18.2	190.9
1985[1]	42.2	43.7	39.1	9.9	30.5	15.6	13.9	12.5	10.9	10.2	12.6	25.0	266.1

[1] Preliminary. *Source: Department of Commerce* T.102

Bahia Crops In Thousands of Bags of 60 Kilos

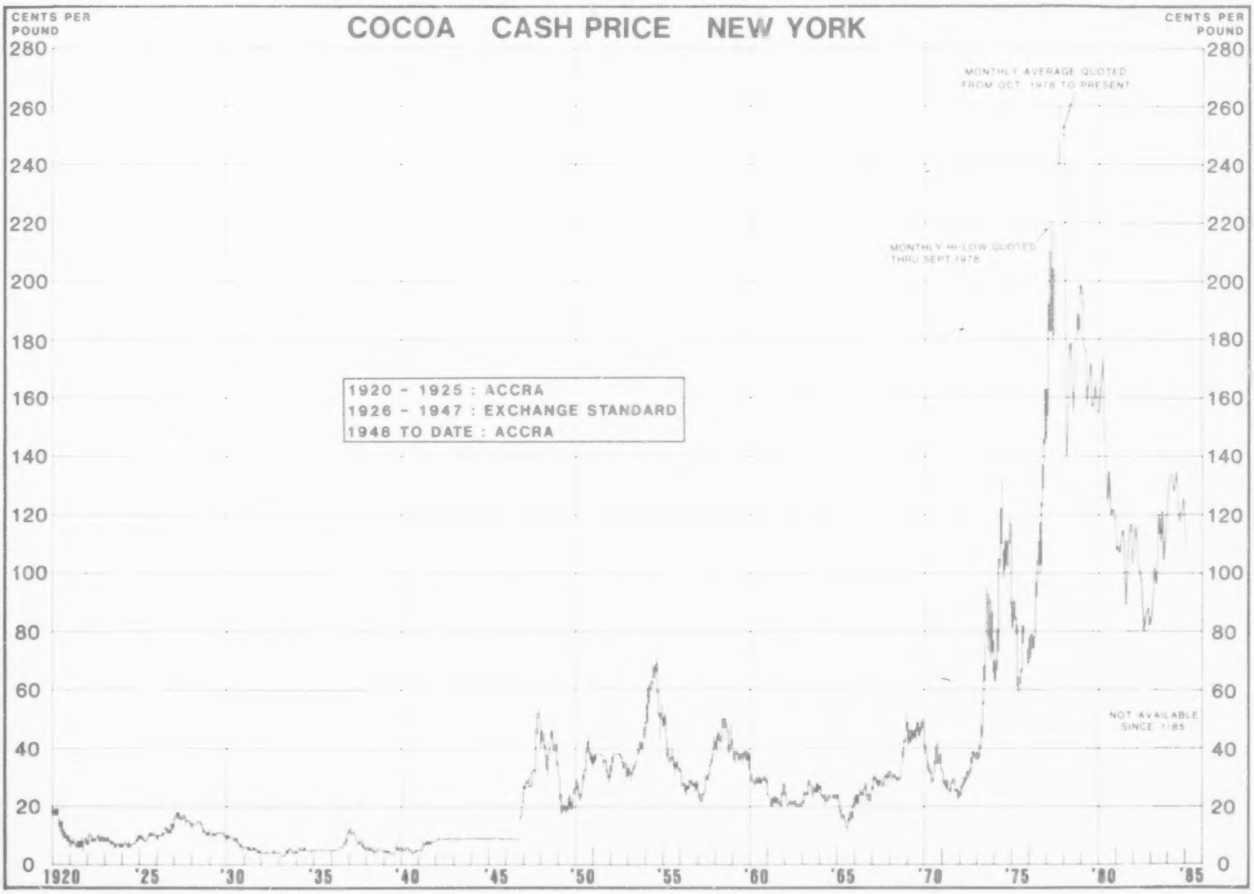
Year	Total Crop Brazilian Crop Year	Temporao Brazilian Crop Year	Main-Mid March (Arrivals)	Main Crop (Oct.-Apr.)	Temporao International Crop Year	Total Crop International Crop Year
1977-78	3,989	2,102	1,769	1,887	2,524	4,411
1978-79	4,329	2,524	1,762	1,805	3,129	4,934
1979-80	5,387	3,129	2,158	2,257	2,383	4,640
1980-81	5,041	2,383	2,646	2,658	2,892	5,550
1981-82	4,609	2,892	1,718	1,718	3,170	4,888
1982-83	5,284	3,170	2,114	2,114	3,084	5,198
1983-84	5,876	3,084	2,792	2,792	1,786	4,578
1984-85[1]	5,030	1,786	3,244	3,244	3,126	6,370

[1] Preliminary. *Source: Gill & Duffus Group PLC* T.102a

New York Cocoa Bean Futures[1] Prices In Cents Per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1977	173.0	190.3	207.5	198.3	199.3	199.3	199.3	199.3	256.0	250.0	250.0	250.0	214.4
1978	165.0	140.0	178.0	179.0	170.0	155.0	161.0	175.0	189.0	183.0	199.0	196.0	174.2
1979	193.0	177.0	176.0	157.5	165.0	172.0	158.0	157.0	166.0	159.0	154.5	155.0	160.4
1980	163.8	173.5	157.0	147.0	135.0	125.3	134.5	120.0	122.0	119.0	120.0	108.0	135.4
1981	109.5	110.0	112.0	115.0	104.0	89.0	108.5	112.0	117.0	113.0	103.0	109.0	108.5
1982	116.0	107.0	102.0	99.0	94.0	80.0	83.0	86.0	87.0	88.0	82.0	85.0	92.4
1983	91.0	102.0	99.0	96.0	100.0	120.0	110.0	122.0	105.0	110.8	115.0	127.0	108.2
1984[2]	115.2	110.8	113.0	112.8	118.8	108.2	97.1	98.6	104.3	99.8	100.6	95.5	106.2
1985	98.3	100.0	98.9	101.6	96.1	91.5	95.7	98.2	101.3	102.5	97.9	102.0	98.7
1986	100.6	95.5											

[1] Avg. of the daily closing price of the nearest 3 active futures trading month converted to ¢ per lb. [2] Prices prior to 1984 are for Spot Cocoa Bean (ACCRA) in N.Y. *Source: Bureau of Labor Statistics* (0191-0221); N.Y. Cocoa Exch. T.105



COCOA

Visible Stock of Cocoa in Philadelphia (Delaware River) Warehouses, at End of Month In Ths. of Bags

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1980	64.6	52.5	40.0	33.4	53.3	45.3	38.8	47.3	55.8	21.6	11.8	33.6
1981	38.1	15.5	15.4	45.7	189.7	227.4	246.6	255.8	307.5	271.9	234.6	231.3
1982	190.1	163.4	174.1	163.2	154.0	125.7	104.6	64.2	51.8	64.3	69.3	98.5
1983	123.6	192.4	281.5	356.5	344.7	338.9	297.7	258.5	204.5	119.8	69.2	43.0
1984	59.5	69.9	105.4	98.8	148.3	168.0	158.3	187.6	165.3	99.7	83.6	217.1
1985	221.3	282.0	333.6	420.9	416.4	389.1	315.9	323.9	320.7	316.3	289.1	280.6
1986	281.3	276.4	259.4									

Source: Coffee, Sugar & Cocoa Exch., Inc. T.107

Visible Stock of Cocoa in New York Warehouses[1], at End of Month In Thousands of Bags

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1980	85.3	68.2	18.0	29.4	42.8	84.3	94.8	78.3	71.6	52.7	69.5	22.7
1981	37.5	14.9	29.3	66.5	120.3	93.1	75.8	115.3	84.6	62.1	55.5	66.2
1982	33.4	61.3	66.7	57.3	99.0	98.6	115.8	137.7	108.8	97.1	96.1	68.9
1983	64.7	80.1	80.0	88.9	136.4	184.8	178.7	173.5	138.6	109.5	103.0	93.9
1984	59.3	53.2	52.3	52.5	70.7	57.2	93.8	99.9	109.2	62.8	36.3	32.4
1985	34.7	22.0	13.2	36.4	167.8	170.9	161.3	155.7	164.6	150.6	131.8	107.1
1986	99.2	96.9	95.0									

[1] In licensed & unlicensed warehouses of storage companies licensed by the Coffee, Sugar & Cocoa Exch. *Source: Coffee, Sugar & Cocoa Exch., Inc.* T.106

U.S. Spot Cocoa Prices for Selected Origins of Cocoa Beans and Products (Dollars per metric ton)

Crop Year	Cocoa Beans				Chocolate Liquor		Cocoa Butter		Cocoa Cake
	Ivory Coast	Brazil	Dominican Republic	Ecuador	Ecuador	Brazil	African	Other	10-12% Fat
1982/83	2,031	1,999	1,815	1,886	2,310	2,440	4,294	4,191	872
1983/84	2,569	2,611	2,361	2,477	3,025	3,119	5,281	5,178	1,610
1984/85	2,433	2,407	2,197	2,239	2,784	2,919	5,331	5,276	951
October '85	2,547	2,406	2,208	2,221	2,796	2,974	5,431	5,389	866
November '85	2,446	2,340	2,132	2,133	2,706	2,866	5,277	5,244	845
December '85	2,522	2,452	2,250	2,249	2,830	2,977	5,541	5,504	874
January '86	2,455	2,387	2,215	2,219	2,761	2,942	5,374	5,345	850
February '86	2,334	2,274	2,111	2,133	2,604	2,788	5,066	5,040	790
March '86									

Source: The Cocoa Merchants Association. All prices are nominal net ex dock or ex warehouse, U.S. Eastern seaboard North of Hatteras, for merchandise physically available in interstate commerce, in truckload quantities, regular commercial quality. *Foreign Agricultural Service, U.S.D.A.* T.99a

Month End Open Interest of Cocoa Futures at New York In Contracts

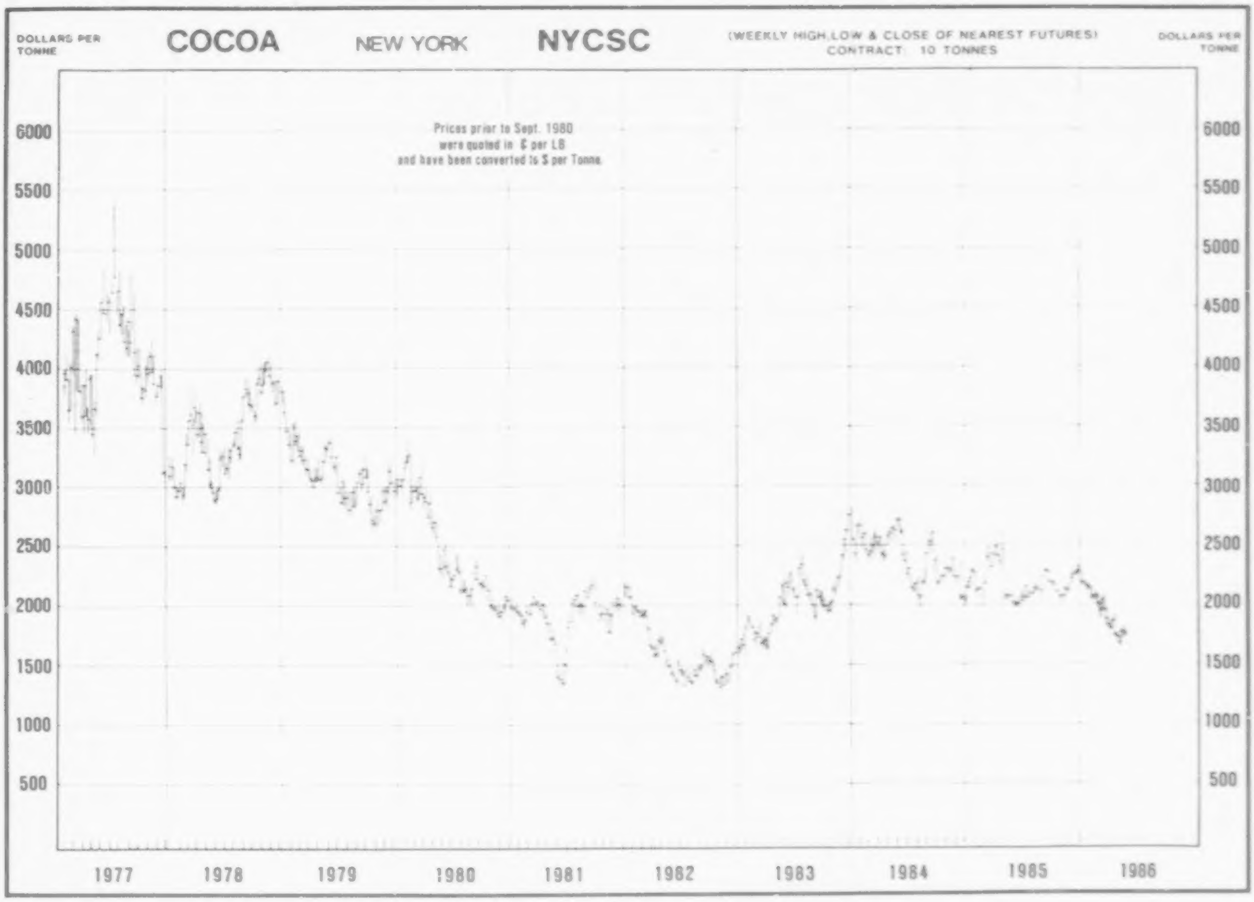
Year	Jan.	Feb.	Mar.	Apr.	May	June.	July	Aug.	Sept.	Oct.	Nov.	Dec.
1980	8,314	7,723	6,744	6,639	8,114	6,682	8,900	9,529	13,548	14,282	13,210	11,978
1981	14,269	14,064	16,209	13,721	13,929	11,853	16,328	16,897	17,042	18,823	15,388	14,137
1982	14,554	14,421	15,129	14,036	15,563	14,083	15,954	14,678	16,439	18,615	17,600	19,988
1983	25,989	22,401	22,155	24,796	29,457	29,403	28,447	29,275	28,282	27,890	29,266	29,153
1984	29,712	26,116	26,511	22,277	26,795	23,817	23,691	23,397	22,106	22,505	21,253	20,936
1985	25,616	23,817	27,701	23,588	21,103	21,515	20,487	19,106	20,720	20,224	17,981	16,044
1986	19,259	19,521	21,341									

Source: Coffee, Sugar & Cocoa Exch., Inc. T.103

Volume of Trading of Cocoa Futures at New York In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	23,600	40,410	25,066	23,897	26,170	29,673	34,158	27,265	45,437	43,945	39,770	28,954	388,971
1981	32,916	43,352	37,056	52,875	32,691	54,479	55,525	53,557	43,764	63,751	53,674	39,011	562,651
1982	42,498	44,744	52,468	52,591	38,332	50,693	45,504	45,457	61,137	67,652	48,243	56,744	607,964
1983	88,429	96,636	82,115	91,851	83,275	135,536	102,212	112,031	103,023	70,032	97,781	98,619	1,162,540
1984	151,282	113,788	102,622	103,415	113,757	107,219	75,180	101,732	75,294	69,322	74,357	33,927	1,127,752
1985	86,748	83,988	94,863	72,564	64,716	62,989	74,583	57,842	52,912	58,358	53,056	37,954	800,573
1986	52,774	61,836	70,859										

Source: Coffee, Sugar & Cocoa Exch., Inc. T.104



High, Low & Closing Prices of March Cocoa Futures at New York In Dollars per Tonne

Year of Delivery		Year Prior to Delivery											Delivery Year			Life of Delivery
		Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Range
1981	High	3350	3245	3011	2830	2650	2562	2350	2454	2305	2217	2105	2084	2017	2075	3350
	Low	3085	2940	2785	2422	2385	2260	2210	2195	2121	1960	1905	1922	1795	1915	1795
	Close	3110	2960	2792	2425	2393	2275	2226	2220	2226	1965	2050	1944	1947	2025	—
1982	High	2260	2300	2250	2125	1920	2215	2290	2360	2292	2065	2085	2184	2020	1965	2360
	Low	2170	2190	2081	1890	1625	1808	2160	2196	1922	1816	1910	1942	1860	1780	1780
	Close	2224	2210	2130	1935	1720	2202	2263	2283	2005	1911	2054	1942	1924	1806	—
1983	High	2145	2105	1875	1835	1663	1640	1604	1696	1669	1495	1650	1840	1919	1816	2295
	Low	2071	1840	1738	1657	1508	1485	1451	1534	1435	1383	1447	1565	1640	1688	1383
	Close	2071	1854	1802	1660	1605	1518	1527	1604	1467	1465	1603	1826	1704	1691	—
1984	High	2015	1958	1990	2325	2390	2460	2440	2195	2124	2272	2759	2805	2626	2645	2805
	Low	1785	1790	1780	1895	2070	2055	2080	1907	1953	1967	2175	2353	2355	2425	1653
	Close	1838	1835	1990	2168	2224	2369	2113	2089	1989	2224	2755	2521	2462	2617	—
1985	High	2455	2510	2500	2560	2430	2234	2305	2350	2248	2291	2133	2309	2332	2210	2602
	Low	2240	2350	2343	2401	2230	1998	1990	2150	2118	2056	2034	2018	2071	1985	1985
	Close	2363	2489	2435	2401	2280	2000	2275	2199	2224	2117	2052	2271	2140	2139	—
1986	High	2135	2190	2170	2105	2048	2207	2295	2392	2365	2239	2305	2315	2140		
	Low	2000	1955	2025	1980	1967	1991	2125	2170	2173	2117	2180	2118	1975		
	Close	2028	2150	2027	2041	2013	2153	2262	2336	2191	2214	2298	2146	2000		
1987	High	2283														
	Low	2148														
	Close	2165														

Source: Coffee, Sugar & Cocoa Exch., Inc.

T 108

Coconut Oil and Copra

The USDA in March 1986 estimated 1985/86 season world production of copra at 5.09 million tonnes, 4 percent above estimated 1984/85 output of 4.89 million tonnes. World copra crush in 1985/86 was forecast at 4.91 million tonnes, about 6 percent above crushings in the previous season. Ending world stocks were estimated to be about unchanged from stocks at the end of the 1984/85 season. Copra is the dried meat of the coconut from which oil and meal are obtained. The Philippines is the world's largest producer of copra, in recent years accounting for as much as 45% of total world production and a somewhat smaller share of world coconut oil output.

The USDA forecast 1985/86 world production of coconut oil at 3.09 million tonnes versus a preliminary estimate of 2.93 million tonnes for the 1984/85 season. Coconut oil exports were forecast at 1.33 million tonnes versus 1.11 million in 1984/85, reflecting greater availability and sharply lower prices.

World consumption of coconut oil in 1985/86 was expected by the USDA to increase to 2.95 million tonnes from 2.79 million in 1984/85. The U.S. is the world's largest importer of coconut oil, more of which is consumed in inedible products than in edible products. U.S. imports of coconut oil spurted 47 percent in the October 1985/January 1986 period, to about 186 thousand tonnes from 126 thousand in the same period of the previous season. The structure of U.S. demand for coconut oil has been considered to be relatively inelastic. However, shifts in the relative prices of coconut oil and petroleum can affect the use of coconut oil in some industrial products where either petroleum or coconut oil (or other lauric oils) may be a suitable feedstock.

With larger supplies of copra meal, consumption and exports in 1985/86 were expected to increase, partly at the expense of soybean meal. Most of the copra meal consumption takes place in the European Community, where it is regarded as an inexpensive component in least-cost feed formulations. The Philippines exports about all of the copra meal that it produces, mainly to the European Community.

While copra production is expected to increase somewhat following recovery in the Philippines from the lagged effects of drought in 1983 and typhoon damage in 1984, the prospects for significant gains in world copra production are regarded as poor. Many trees are well past prime production age. The lack of funding hinders efforts to stimulate replanting, and there is tree-owner resistance to cutting producing stands to make room for new hybrid varieties. Also, the new, shorter-tree hybrids presumably would hinder double-cropping with cocoa and other crops. The longer-term prospects for copra production in Indonesia are considered to be even poorer than in the Philippines. Coconut area continues to stagnate, according to the USDA. And, Indonesia, like the Philippines, has large numbers of relatively tall, low-yield and over-age trees. In addition, government efforts favor increasing production of rice and palm oil. Domestic demand and prices are said to favor the sale of coconuts for food use in Indonesia rather than for copra output and oil and meal production.

World Copra Production by Principal Countries In Thousands of Metric Tons

Crop Year	Naupu	Fiji	India	Indonesia	Jamaica	Malaysia	Mexico	Mozambique	Papua-New Guinea	Philippines	Solomon Isl.	Sri Lanka	Tanzania	Thailand	Ivory-Coast	New Hebrides	Vietnam	Tons World Total
1978–9	35	22	317	1,040	28	213	130	65	159	1,823	33	166	27	50	14	49	39	4,367
1979–0	46	25	329	1,158	29	210	120	68	145	1,960	32	93	29	50	21	34	39	4,553
1980–1	42	25	329	1,284	25	208	130	55	158	2,256	32	128	29	30	24	47	39	4,986
1981–2	42	25	335	1,205	28	206	100	50	132	2,077	33	174	29	35	26	44	40	4,790
1982–3	42	25	268	1,091	29	208	110	50	120	2,015	31	131	29	30	27	45	40	4,580
1983–4[1]	42	25	300	1,205	30	212	100	50	125	1,417	33	72	29	40	27	47	41	3,810
1984–5[2]	42		338	1,203		220	100	50	128	2,000	33	129				47		4,890
1985–6[2]																		5,090

[1] Preliminary [2] Forecast. *Source: Foreign Agricultural Service, U.S.D.A.* T.109

World Coconut Oil Exports by Principal Countries In Thousands of Metric Tons

Crop Year	Sri Lanka (Ceylon)	Singapore[2]	Indonesia	Malaysia[2]	Philippines Registered	Ivory Coast	Netherlands	Mozambique	EC-10	Fiji	Papua New Guinea	Total Oceania	World Total
1978–9	32	42	2	66	795	9	31	5	165	17	28	70	1,092
1979–80	3	35	41	65	914	9	35	4	133	18	34	75	1,204
1980–1	21	63	4	64	1,047	13	41		67	15	29		1,338
1981–2	39	50	0	60	949	16	33		82	15	33		1,260
1982–3	38	30	8	69	1,020	16	35		65		22		1,320
1983–4[1]	40	24	20	65	586	20	20		52		22		910
1984–5[3]			3	66	949				63				1,110
1985–6[3]													1,330

[1] Preliminary [2] Net exports [3] Forecast *Source: Foreign Agricultural Service, U.S.D.A.* T.110

Supply & Distribution of Coconut Oil in the United States In Millions of Pounds

Year Begin. Oct. 1	Imports[2]	Stocks Oct. 1[3]	Total Supply	Exports & Shipments	Disappearance			Production of Coconut Oil (Refined)				
					Total Dom.	Edible Pdt's	Inedible Pdt's	Total	Jan.–March	April–June	July–Sept	Oct.–Dec.
1978–9	967	145	1,112	8	947			768.3	187.9	207.5	196.6	176.2
1979–0	810	157	967	30	785			595.6	183.9	137.4	143.8	129.7
1980–1	1,122	152	1,274	38	1,032	337.6	452.1	644.7	146.1	153.4	156.0	196.1
1981–2	960	204	1,164	28	976	337.9	411.5	700.3	193.3	175.3	171.9	159.8
1982–3	882	160	1,042	21	875	340	493.9	665.7	162.1	162.4	168.7	172.5
1983–4[1]	916	146	1,062	50	901	299		692.6	163.1	186.0	167.1	176.4
1984–5[1]	891	111	1,002	22	858	274.5	376.0	616.2	161.3	175.7	145.1	134.1
1985–6[1]	1,100	122	1,222	33	948			564.0	130.7	133.9	147.6	151.8

[1] Preliminary. [2] Imports for consumption. [3] Includes G.S.A. stockpile & in U.S. bond. *Sources: Bureau of the Census; Agricultural Marketing Service*

T.112

U.S. Consumption of Coconut Oil in End Products In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct	Nov.	Dec.	Total
1975	67.6	58.2	68.1	70.7	67.7	71.8	61.8	75.2	81.1	87.8	78.5	76.8	865.3
1976	80.3	78.4	88.1	83.3	84.9	90.3	80.2	82.6	80.8	79.2	87.1	75.1	990.3
1977	73.4	69.9	82.6	73.0	73.9	79.1	63.1	71.9	73.1	76.3	77.4	65.0	878.7
1978	69.3	71.0	81.5	88.9	87.6	76.1	73.6	79.0	72.4	84.0	75.4	55.4	914.2
1979	72.7	66.3	83.3	69.1	69.9	62.0	50.4	58.5	58.0	54.4	55.3	48.5	748.5
1980	55.9	49.9	59.5	55.8	58.1	56.3	56.2	51.0	62.5	66.9	63.1	58.3	693.5
1981	67.6	65.0	71.1	68.2	64.0	70.4	58.0	70.4	66.7	73.2	59.8	52.2	786.6
1982	63.3	59.6	61.7	58.5	64.7	64.2	62.2	63.9	66.1	60.2	70.5	60.6	755.5
1983	62.0	64.8	61.1	64.8	80.2	74.9	70.5	61.2	64.3	68.4	66.2	61.0	799.4
1984	71.5	68.5	66.0	67.0	72.6	70.9	61.8	70.7	48.1	63.4	56.6	45.3	762.4
1985[1]	53.4	57.1	46.1	52.5	51.7	52.8	53.2	57.2	61.2	53.1	57.7	50.0	646.0
1986[1]	67.7	43.3											

[1] Preliminary. *Source: Bureau of the Census*

T.114

Stocks of Coconut Oil (Crude & Refined) in the United States[2] In Millions of Pounds

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1976	114.1	140.6	135.4	113.6	114.1	125.3	125.6	127.3	150.3	127.4	142.4	137.9
1977	123.0	163.9	152.0	156.3	170.7	162.7	150.5	160.5	178.8	136.7	128.6	114.6
1978	133.7	146.5	176.7	173.6	166.8	140.2	146.0	132.6	130.6	144.8	123.1	120.2
1979	154.6	211.3	216.0	89.1	47.5	156.4	119.5	132.2	138.7	167.1	235.0	218.8
1980	309.7	357.7	248.4	246.5	211.2	211.9	220.6	191.6	210.1	182.6	225.6	264.6
1981	300.1	309.2	359.6	322.5	309.5	289.5	285.1	265.8	260.3	227.7	170.0	168.7
1982	173.1	153.6	186.0	160.7	153.0	170.8	194.8	184.3	166.9	159.7	144.5	144.5
1983	127.2	143.8	144.7	144.0	162.9	168.9	123.6	127.7	131.8	145.3	162.5	175.6
1984	175.2	215.5	193.8	165.0	150.2	121.8	78.7	90.9	100.2	111.0	119.8	107.3
1985[1]	121.5	127.9	91.9	81.3	74.9	85.9	116.0	121.7	140.5	130.0	177.4	162.8
1986[1]	206.5	259.0	243.8									

[1] Preliminary. [2] Includes coconut oil held in U.S. customs bond *Source: Bureau of Census*

T.115

Average Price of Coconut Oil (Crude)[1] at the Pacific Coast (United States) In Cents Per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1976	16.1	16.1	17.0	17.1	17.2	18.9	22.3	21.6	23.8	23.0	23.8	26.3	20.3
1977	25.6	27.4	34.7	37.3	34.3	29.9	24.8	21.8	22.9	23.9	24.9	26.4	27.8
1978	26.4	27.1	31.9	30.5	29.9	32.4	32.9	32.3	39.2	41.6	42.6	42.6	34.1
1979	46.3	47.2	47.0	49.9	53.2	57.3	57.3	53.7	44.8	42.5	42.4	40.2	48.5
1980	40.8	40.6	37.5	34.1	29.3	29.5	30.4	29.9	29.1	27.9	29.4	27.8	32.1
1981	26.3	25.0	23.9	24.3	26.0	27.4	28.1	26.4	24.3	26.6	26.6	25.4	25.9
1982	24.8	24.8	22.9	23.0	23.3	23.1	21.1	19.3	19.8	20.0	N.A.	N.A.	22.2
1983	N.A.	20.3	21.0	25.6	28.4	35.8	33.7	N.A.	N.A.	N.A.	N.A.	44.9	27.5
1984	49.2	54.3	53.0	50.8	63.0	69.9	73.3	70.0	64.6	65.6	56.2	52.6	60.2
1985	42.2	40.2	41.0	41.0	N.A.	N.A.	31.7	27.5	25.0	24.0	22.8	17.4	31.3

[1] Tank cars, f.o.b. mill. Includes 1c import duty. *Source: Bureau of Labor Statistics*

T.116

Coffee

Members of the International Coffee Organization exported an estimated 71.8 million bags between February 1985 and January 1986. That figure was nearly 7 percent larger than the year before. Brazilian milds and other arabicas made up 28 percent of the total, other milds 26 percent, robustas 25 percent, Colombian milds 18 percent, and arabicas 4 percent.

Just under 19 million bags of green coffee were imported into the United States during 1985, up more than 5 percent from 1984. Better than a fifth of the imports came from Brazil, about a sixth from Colombia, and nearly 10 percent from Mexico. The remainder originated in 22 different countries, whose respective share of the U.S. market ranges from 7.3 percent to 0.1 percent. The volume of green coffee roasted in the U.S. during 1985 was 17 million bags (60 kilos, green basis), little different from the final figure for 1984. The price of wholesale ground-roast, all packs, which began 1985 at $2.77 per pound had risen by year's end to $2.84. For ground roast cans, the yearly range was between $2.60 and $2.686, the latter figure coming toward the end of the year, while for soluble coffee the per-pound price rose from $7.95 in January to almost $8.38 in December.

The major event of 1985 for the coffee industry was the damage done to Brazilian trees, as a direct consequence of a seven-months drought. Whereas Brazil's outturn of coffee in the 1985–86 season was reported at close to 30 million bags, the country's Coffee Institute initially reckoned the 1986–1987 crop at 16.7 million bags, only 44 percent of the comparable figure for 1985–1986; it is probable that the outturn's estimate will be revised at a later date.

Coffee prices were helped initially in the fall of 1985 by the announcement of an initial International Coffee Agreement export quota for the 1985–86 coffee year of 58 million 60-kilogram bags vs. 61 million in the past season. The main forces for skyrocketing coffee prices in the final quarter of 1985 and extending into early 1986 were: tight supplies of high quality coffees, particularly in the U.S. where inventories had been considered low ahead of the peak coffee consuming period while movement of mild coffees from Central America had been slow; and prospects of a much smaller 1986–87 Brazilian crop due to extended drought conditions which adversely affected flowering in Brazil's major coffee-producing states of Sao Paulo, Minas Gerais, and Parana—which also account for much of Brazil's prime quality coffee. Early estimates of the crop were as low as 14 million bags. Increases in ICO export quotas failed to hold prices in the desired $1.20 to $1.40 per lb. price range, and as of February 18, quotas on exports by ICO members were suspended when the 15-day moving average of the composite indicator price remained above $1.50075 per lb. for 45 days. While quotas were to be reinstated if the 15-day moving average of the composite indicator price fell to, or below, $1.3455 per lb., there was concern about the subsequent effectiveness of the ICO. In any case, a substantial portion of the indicated shortfall between demand for and supply of coffee will be made up by producers other than Brazil, notably Colombia. If other producers are able to make up most of the shortfall or if the shortfall proves smaller than indicated in early 1986; the sharp runup in coffee prices that began in the fall of 1985 will be halted, if not reversed. The latter possibility is enhanced by the prospect that, should prices remain at their level at the end of 1985, consumers will reduce their consumption of coffee in favor of other beverages, such as tea.

Futures Markets

Washed arabica coffee futures are traded on the Coffee, Sugar & Cocoa Exchange, Inc. in New York. Robusta coffee futures are traded in London and also in Paris.

World Coffee Supply and Distribution In Thousands of 60 Kilo Bags

Country by Time Period	Beginning Stocks	Production	Imports	Total Supply Distribution	Domestic Use	Exports				Ending Stocks
						Beans	RSTD/GRND	Soluble	Total	
1977/78	25,612	70,696	613	96,921	18,764	47,704	183	897	48,784	29,373
1978/79	29,373	78,978	729	109,080	19,466	61,906	222	2,433	64,561	25,059
1979/80	25,053	81,789	690	107,532	19,973	59,244	217	2,573	62,034	25,525
1980/81	25,525	86,261	653	112,439	20,595	56,835	166	2,821	59,822	32,022
1981/82	32,022	98,189	769	130,980	21,232	60,584	223	4,059	64,866	44,882
1982/83	44,882	82,778	790	128,450	20,686	62,101	202	2,488	64,791	42,973
1983/84	42,973	90,049	779	133,801	21,228	65,188	337	2,772	68,297	44,276
1984/85[1]	44,276	90,357	614	135,247	21,500	67,824	300	3,310	71,434	42,313
1985/86[2]	42,313	98,647	611	141,571	22,328	67,562	324	2,873	70,759	48,484

Note: Total may not add because of rounding. [1] Preliminary. [2] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T.117a

World Green Coffee (Total) Production In Thousands of 60 Kilo Bags (132.276 Lbs. Per Bag)

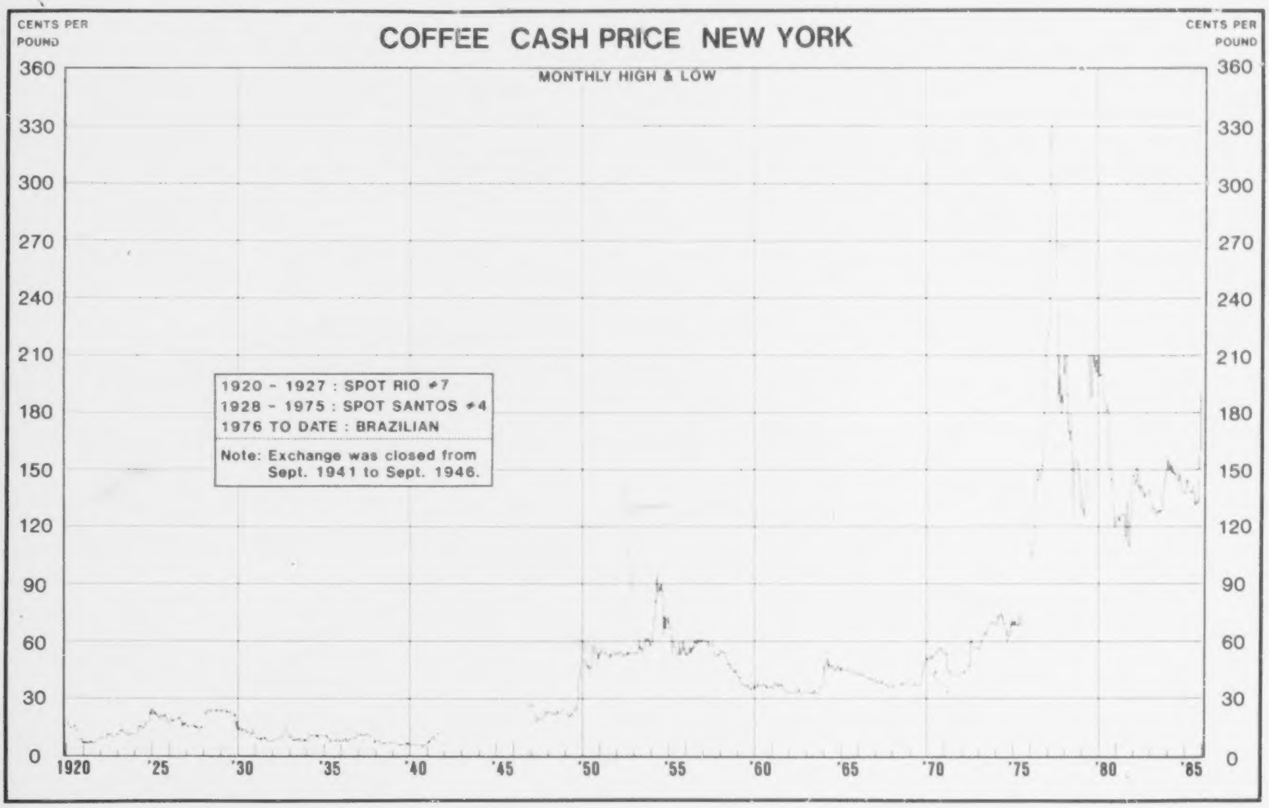
Crop Year	Angola	Brazil	Cameroon	Colombia	Costa Rica	Ethiopia	Guatemala	India	Indonesia	Ivory Coast	Mexico	Salvador	Uganda	Zaire (Congo, K)	World Total
1978-9	613	20,000	1,634	12,600	1,749	3,142	2,827	1,842	4,788	4,742	4,022	3,423	1,944	1,293	79,074
1979-0	260	22,000	1,658	12,712	1,522	3,188	2,647	2,495	4,803	3,973	3,600	3,322	2,042	1,316	81,908
1980-1	586	21,500	1,959	13,500	2,140	3,264	2,702	1,977	5,365	6,090	3,862	2,940	2,133	1,526	86,344
1981-2	392	33,000	1,850	14,342	1,782	3,212	2,653	2,540	5,785	4,160	3,900	2,886	2,885	1,425	98,189
1982-3	330	17,750	1,830	13,300	2,300	3,670	2,530	2,170	4,750	4,510	4,530	3,100	3,000	1,354	82,778
1983-4	260	30,000	1,000	13,000	2,070	3,990	2,340	1,667	5,500	1,420	4,530	2,600	3,200	1,350	90,049
1984-5[1]	260	27,000	2,100	11,000	2,516	2,600	2,703	2,917	5,400	4,900	4,250	2,700	3,300	1,503	90,357
1985-6[1]	250	33,000	1,900	12,500	2,013	3,150	2,530	2,334	5,750	5,000	4,480	2,600	3,000	1,540	98,647

[1] Preliminary. *Source: Foreign Agricultural Service, U.S.D.A.* T.117

World Green Coffee (Exportable)[3] Production In Thousands of 60 Kilo Bags

Crop[2] Year	Angola	Brazil	Cameroon	Colombia	Costa Rica	Ethiopia	Guatemala	Indonesia	Ivory Coast	Kenya	Mexico	Salvador	Uganda	Zaire (Congo, K)	World Total
1978-9	568	12,000	1,606	10,970	1,533	1,432	2,517	3,738	4,677	1,181	2,915	3,226	1,905	1,123	60,028
1979-0	220	14,000	1,626	10,962	1,311	1,555	2,336	3,723	3,908	1,468	2,310	3,122	2,001	1,141	62,258
1980-1	545	13,500	1,926	11,675	1,932	1,664	2,381	4,137	6,026	1,648	2,362	2,740	2,090	1,346	66,064
1981-2	350	24,500	1,815	12,492	1,539	1,596	2,328	4,630	4,095	1,434	2,450	2,686	2,840	1,240	77,311
1982-3	287	9,750	1,785	11,445	2,077	2,108	2,195	3,636	4,445	1,501	2,830	2,900	2,954	1,159	62,366
1983-4	216	21,500	945	11,140	1,837	2,355	2,000	4,375	1,355	2,186	3,030	2,400	3,153	1,096	69,127
1984-5[1]	215	18,500	2,045	9,135	2,281	700	2,373	4,440	4,835	1,460	2,530	2,500	3,252	1,253	69,097
1985-6[1]	204	24,000	1,845	10,630	1,778	1,300	2,210	4,650	4,930	2,105	2,710	2,400	2,950	1,275	76,563

[1] Preliminary. [2] Coffee marketing year begins in July in some countries & in others about Oct. [3] Exportable production represents total harvested production minus estimated domestic consumption. *Source: Foreign Agricultural Service, U.S.D.A.* T.118


COFFEE CASH PRICE NEW YORK

MONTHLY HIGH & LOW

COFFEE

Origin of Coffee Imports (for Consumption) into the U.S. In Thousands of 60 Kilo Bags

Year	Angola	Brazil	Colombia	Costa-Rica	Domin Repub	Ecuador	Ethi-opia	Guate-mata	Indon-esia	Ivory Coast	Mexico	Peru	Phil-ippines	Salva-dor	Vene-zuela	Grand Total
1972	1,297	6,152	2,711	294	401	490	965	689	744	977	1,070			391	243	20,769
1973	1,693	4,596	2,868	284	507	435	1,062	1,110	626	1,150	1,641			1,047	174	21,789
1974	2,396	2,725	3,090	268	381	512	505	1,096	942	749	1,324			1,111	246	19,245
1975	1,202	3,748	3,400	192	336	694	533	874	765	966	1,662	432		1,018	182	20,289
1976	871	3,092	2,688	179	551	767	703	749	1,082	1,330	1,869	461	44	1,045	288	19,788
1977	49	2,453	1,951	272	585	505	288	832	860	673	1,406	654	6	1,037	155	14,808
1978	304	2,694	2,808	334	461	1,044	461	942	1,177	775	1,390	954	62	627	239	18,133
1979	40	1,890	3,891	516	548	638	549	1,123	1,294	834	1,934	565	96	1,123	121	19,396
1980	120	3,505	3,404	298	343	539	406	1,374	1,315	438	1,337	573	179	1,374	35	18,153
1981	21	3,243	1,727	226	359	701	547	645	1,516	602	1,393	439	270	779	27	16,555
1982	63	3,372	1,710	248	500	773	578	844	1,118	998	1,377	513	308	919	16	17,416
1983	27	3,417	1,755	226	430	857	519	887	1,079	674	1,495	439	276	1,214	26	16,449
1984	5	3,866	2,170	258	447	961	423	1,118	1,030	1,144	1,553	557	296	1,052	88	17,734
1985[1]	27	4,148	2,554	360	439	974	195	1,054	1,041	951	1,812	543	407	1,366	107	18,698
1986																

[1] Preliminary *Source: U.S. Department of Commerce*

T.122

Total Coffee Imports (for Consumption) into the U.S. In Thousands of 60 Kilo Bags

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct	Nov	Dec	Total
1972	2,547	2,172	1,137	1,146	1,784	1,452	1,434	1,947	2,149	2,057	1,643	1,288	20,757
1973	1,996	1,844	2,101	2,050	2,494	1,710	1,573	1,731	1,399	1,624	1,624	1,652	21,799
1974	2,182	2,022	2,457	2,264	1,873	1,529	1,499	1,152	821	740	1,159	1,550	19,248
1975	1,852	1,656	1,535	1,448	1,365	1,736	1,626	1,868	2,533	1,784	1,587	1,299	20,289
1976	1,664	1,744	2,311	1,636	1,546	1,864	1,909	1,637	956	1,013	1,649	1,858	19,788
1977	1,994	1,707	1,839	1,824	1,224	1,137	756	695	678	635	972	1,347	14,808
1978	1,682	1,575	1,707	1,557	1,345	1,249	1,316	1,124	1,337	1,901	1,689	1,651	18,133
1979	1,747	1,353	1,631	2,037	1,619	1,617	1,597	1,404	1,632	1,273	1,593	1,893	19,396
1980	2,020	1,366	1,421	1,642	1,566	1,663	1,533	1,386	1,062	1,292	1,386	1,715	18,153
1981	1,858	1,738	1,395	1,299	1,356	1,026	922	1,213	1,150	1,487	1,565	1,547	16,555
1982	1,287	1,195	1,490	1,147	1,476	1,335	1,282	1,602	1,640	2,005	1,356	1,602	17,416
1983	1,556	1,332	1,373	1,253	1,502	1,034	1,319	1,230	1,532	1,685	1,380	1,253	16,449
1984	1,598	1,299	1,440	1,905	1,615	1,059	1,722	1,735	1,432	1,614	1,127	1,187	17,734
1985	1,622	1,681	1,702	1,430	1,324	1,751	1,217	1,757	1,773	1,385	1,272	1,785	18,699
1986													

Source: U.S. Dept. of Commerce

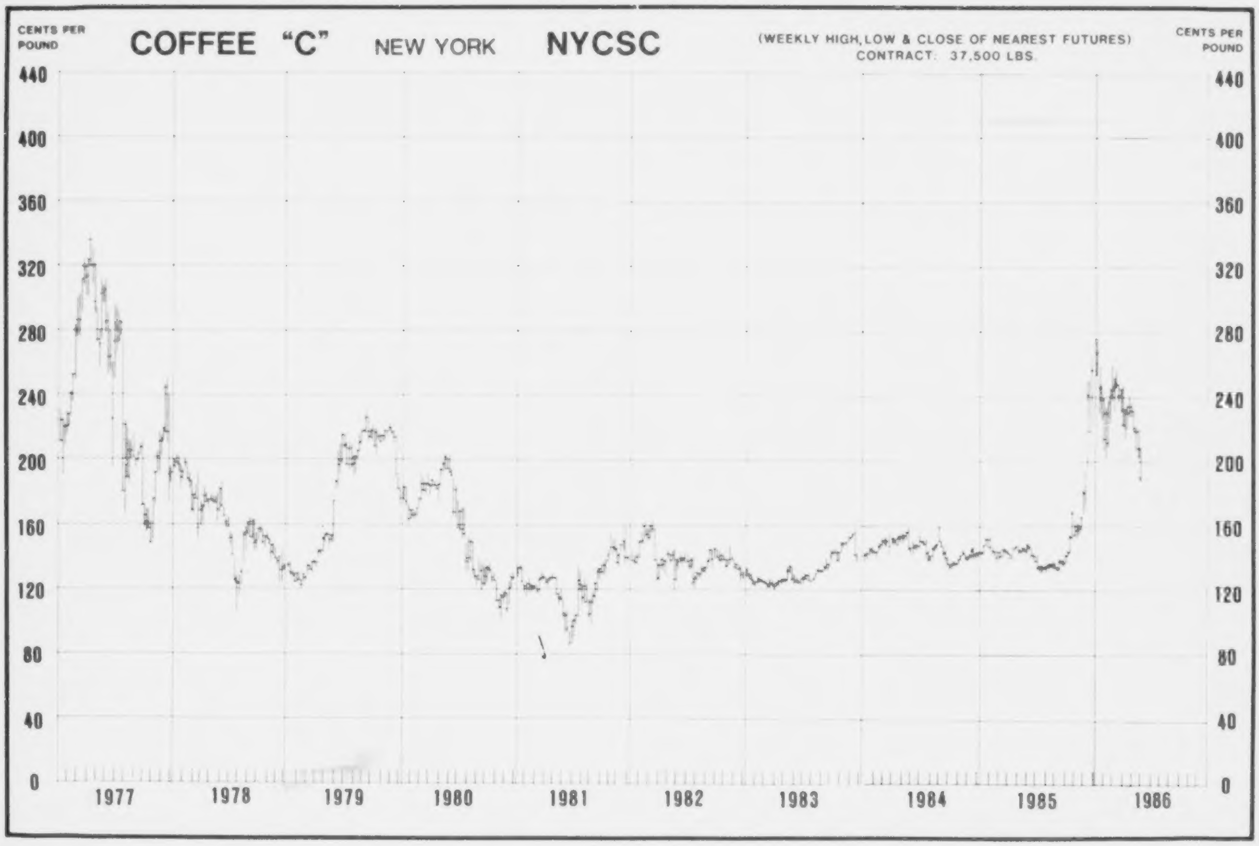
T.121

Average Spot Price of Coffee (Santos No. 4) in N.Y. In Cents Per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1972	N.A.	N.A.	N.A.	46.3	48.0	48.5	N.A.	62.5	59.0	48.0	56.0	57.0	54.4
1973	57.0	62.0	65.5	65.0	65.0	67.0	70.0	70.0	72.5	72.3	73.0	72.0	67.6
1974	72.0	71.0	75.0	75.5	76.5	74.0	72.0	63.0	60.0	64.0	69.0	70.0	70.2
1975	67.5	68.0	—No Quotations—										67.8
1976	—No Quote—				93.5	—No Quote—			152.0	—No Quote—			122.8
1977	—No Quote—												
1978	—No Quote—							135.0	154.0	154.0	153.0	146.0	148.4
1979	146.0	127.0	136.0	138.0	148.0	180.0	209.0	201.0	206.0	208.0	205.0	212.0	176.3
1980	189.0	213.0	205.0	208.0	218.0	211.0	195.0	206.0	206.0	210.0	210.0	208.0	206.6
1981	218.0	218.0	218.0	218.0	129.0	115.5	115.5	127.0	127.0	129.5	147.0	150.0	159.4
1982	151.0	136.0	136.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0	133.0	133.0	142.0
1983	133.0	133.0	133.0	141.5	141.5	141.5	141.5	143.0	143.0	143.0	143.0	143.0	140.0
1984	143.0	143.0	143.0	143.0	143.0	143.0	143.0	143.0	143.0	143.0	143.0	143.0	143.0
1985	143.0	143.0	143.0	143.0	143.0	143.0	143.0	143.0	143.0	143.0			
1986													

Source: Bureau of Labor Statistics (0191-0101.01)

T.120



High, Low & Closing Prices of May Coffee Futures in New York In Cents per Pound

Year of Delivery		Year Prior to Delivery										Delivery Year				Life of Delivery Range
		Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	
1981	High	190.75	187.50	198.00	198.60	181.40	162.00	157.00	138.00	128.50	130.40	137.00	127.00	131.40	129.25	127.90	198.60
	Low	176.25	176.10	177.40	169.00	138.47	135.25	129.75	128.25	114.75	116.00	123.30	115.55	117.65	121.50	113.00	113.00
	Close	179.69	178.54	190.60	179.75	146.59	143.78	134.65	128.55	123.25	127.81	127.25	121.00	128.66	126.48	113.00	—
1982	High	126.25	124.00	123.87	111.00	126.75	120.25	123.50	130.25	138.00	133.80	137.88	147.30	149.00	143.75	144.95	149.00
	Low	120.10	117.50	111.50	80.50	81.25	98.28	96.10	123.00	124.25	122.23	128.75	137.25	124.50	129.20	135.10	80.50
	Close	122.60	122.25	112.50	87.50	121.45	98.28	123.00	129.00	126.23	133.63	137.88	141.26	128.56	141.72	138.25	—
1983	High	116.50	118.50	117.50	121.25	117.50	114.00	131.00	131.15	135.40	132.30	127.90	123.95	126.90	126.85	135.17	135.40
	Low	114.00	107.50	109.25	113.50	103.51	107.50	111.00	124.00	126.25	121.60	120.25	118.90	120.35	120.10	124.55	103.51
	Close	114.76	113.00	118.51	118.28	108.25	113.10	129.45	130.49	131.78	125.00	120.60	120.12	123.23	124.80	134.17	—
1984	High	117.00	117.75	126.00	124.50	124.00	127.25	130.05	137.30	139.90	144.10	139.65	145.00	152.30	154.23	158.50	158.50
	Low	109.50	113.00	116.00	121.50	121.60	122.25	125.25	129.30	134.50	134.30	134.25	132.75	141.90	147.00	147.80	108.50
	Close	115.13	116.75	123.38	122.51	122.26	125.80	129.25	135.50	138.78	135.94	137.05	144.84	151.37	152.20	154.00	—
1985	High	131.50	138.50	152.00	146.28	140.15	146.00	143.15	135.35	139.15	140.25	147.90	150.70	146.20	147.30	147.50	152.00
	Low	125.28	130.00	137.50	137.75	132.90	133.25	132.75	131.31	134.50	135.60	138.65	139.85	139.25	138.85	143.00	122.01
	Close	131.38	138.50	142.25	137.76	133.48	144.15	133.80	135.05	135.72	140.25	147.24	139.96	144.43	145.80	143.50	—
1986	High	142.50	145.00	144.50	148.75	143.50	142.13	144.45	161.18	171.45	241.09	272.62	261.00	257.00			
	Low	136.59	137.00	141.55	142.28	136.20	137.75	137.15	136.20	155.25	174.90	217.80	207.78	231.15			
	Close	141.75	143.00	144.00	144.88	138.65	140.75	140.60	161.18	171.45	241.09	219.51	246.96	246.44			
1987	High	265.00															
	Low	247.00															
	Close	265.00															

Source: N.Y. Coffee, Sugar & Cocoa Exch., Inc.

T.125

COFFEE

Month End Open Interest of Coffee Futures at New York   In Contracts

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1978	4,413	4,191	3,942	3,661	3,733	2,952	3,152	3,926	4,004	4,767	5,951	6,581
1979	7,113	7,965	8,799	9,751	10,279	8,761	10,214	12,014	12,479	14,808	15,974	15,988
1980	13,077	13,113	12,990	11,288	16,975	15,854	13,576	10,767	11,824	11,155	9,489	8,848
1981	8,218	8,624	9,931	10,043	8,969	8,093	9,182	8,182	9,223	9,084	8,922	9,823
1982	11,236	9,647	9,249	8,753	7,949	8,358	7,791	8,393	9,677	8,876	9,152	9,273
1983	10,752	10,336	11,739	11,752	11,317	7,885	8,042	9,351	9,439	9,420	8,600	7,706
1984	8,086	10,963	13,012	11,649	9,841	9,437	10,303	10,405	10,300	10,400	10,143	12,431
1985	14,435	12,454	12,973	13,230	12,606	10,561	11,783	10,148	10,066	11,873	11,776	13,167
1986	13,062	15,758	15,611									
1987												

Source: *N.Y. Coffee, Sugar & Cocoa Exch., Inc.*   T.124

Volume of Trading of Coffee "C" Futures at New York   In Contracts

Year	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1978	11,125	10,341	17,202	12,049	12,194	11,112	11,346	18,526	13,526	14,615	14,589	17,334	163,959
1979	21,463	25,243	24,205	36,298	35,885	39,137	43,944	43,046	40,088	50,054	51,949	38,488	449,799
1980	70,277	77,143	112,558	93,108	145,830	87,149	80,217	66,054	69,731	37,528	35,310	32,029	906,944
1981	38,671	34,086	44,963	29,766	39,384	46,094	50,759	50,482	44,368	44,235	49,468	41,757	515,302
1982	47,560	50,976	63,168	52,708	51,062	44,428	42,779	38,457	44,583	39,967	46,247	37,500	556,435
1983	30,567	32,884	44,211	37,399	44,917	45,575	26,065	32,818	22,579	38,999	34,428	36,999	427,441
1984	33,327	44,890	46,793	46,833	51,174	42,891	34,956	48,979	43,159	29,703	37,457	36,094	499,133
1985	48,733	54,809	52,365	58,531	38,755	54,725	42,222	39,425	23,615	58,870	83,845	94,671	650,768
1986	113,305	95,509	76,787										
1987													

Source: *N.Y. Coffee, Sugar & Cocoa Exch., Inc.*   T.123

How to keep your Commodity Year Book statistics up-to-date continuously throughout the year.

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Commodity Research Bureau
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75 MONTGOMERY ST., JERSEY CITY, N.J. 07302

Coke

U.S. Salient Statistics of Coke In Thousands of Short Tons

			Producers' Stocks—Jan. 1						Exports to							
				Oven Coke at Plants												
Year	Production[2]	Domestic Consumption	Total	Merchant	Furnace	Petroleum Coke	Exports	Imports	Canada	Mexico	Bel./Lux	Netherlands	Korea Rep	Turkey	Venezuela	Avg Price of Coke Exports $ SH Ton
1976	58,333	56,834	4,996	278	4,718	1,472	1,315	1,311	754.4	87.7						
1977	53,509	54,144	6,487	314	6,173	2,127	1,241	1,829	634.9	49.4						
1978	49,009	56,948	6,444	136	6,308	2,050	693	5,722	299	37.4						
1979	52,943	53,826	3,534	184	3,350	2,214	1,440	3,974	598	61.0						
1980	46,132	41,278	5,185	595	4,590	1,042	2,071	659	812	75.0						
1981	42,786	44,046	8,627	1,106	7,521	846	1,170	527								
1982	28,115	25,776	6,724	403	6,324	900	993	120	449.7	72.0	99.3	132.7	4.5	—	40.1	61.81
1983	25,808	29,850	8,190	331	7,858	1,344	665	35	471.2	55.8	24.7	24.0	—	—	7.0	68.53
1984[1]	30,561	29,899	3,518	286	3,233	1,096	1,045	582	477.0	72.8	106.4	150.2	64.8	80.1	65.8	66.48
1985[3]			3,716	353	3,363	968	1,122	578	407.3	97.3	108.8	68.0	.1	57.6	42.6	68.40
1986[3]			3,300	390	2,900	1,232										

[1] Preliminary. [2] Beehive and oven, coke & breeze. [3] Estimate. *Source: Bureau of Mines*

T.127

Oven Coke Production in the United States In Thousanas of Short Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1976	4,551	4,372	5,041	4,884	5,069	4,938	5,007	4,785	4,720	4,857	4,752	4,751	57,728
1977	4,412	4,267	4,696	4,666	4,822	4,686	4,639	4,249	4,069	4,289	4,186	4,077	53,060
1978	3,603	2,741	2,661	3,753	4,398	4,362	4,455	4,379	4,346	4,512	4,383	4,645	48,238
1979	4,469	4,031	4,679	4,419	4,585	4,352	4,414	4,440	4,366	4,466	4,252	4,453	52,943
1980	4,394	4,204	4,444	4,396	4,238	3,686	3,370	3,387	3,295	3,470	3,565	3,683	46,132
1981		11,178			9,853			11,175			10,580		42,786
1982		8,828			7,507			6,270			5,509		28,115
1983		5,579			6,451			6,753			7,025		25,808
1984		7,696			8,227			7,522			7,115		30,561
1985[1]		7,211			7,601			7,150					

[1] Preliminary. *Source: Bureau of Mines*

T.128

Coke (Oven-Coke) Stocks at Plants In Thousands of Short Tons

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1976	4,996	5,092	4,994	5,105	5,062	4,992	4,729	4,641	4,445	4,750	5,179	5,800
1977	6,487	6,950	7,231	7,283	7,038	6,736	6,468	6,516	6,281	6,192	6,554	6,526
1978	6,444	5,937	5,209	3,460	3,189	2,993	2,964	2,845	2,989	3,065	3,131	3,339
1979	3,534	3,548	3,509	3,339	3,495	3,459	3,200	3,253	3,322	3,754	4,228	4,630
1980	5,185	5,531	5,781	5,832	6,063	6,698	7,426	8,133	8,676	9,018	9,011	9,040
1981	8,267	—	—	7,586	—	—	4,990	—	—	5,198	—	—
1982	6,724	—	—	7,455	—	—	7,871	—	—	7,969	—	—
1983	8,190	—	—	5,781	—	—	4,569	—	—	3,875	—	—
1984	3,518	—	—	3,153	—	—	2,966	—	—	3,441	—	—
1985[1]	3,716	—	—	3,471	—	—	3,279	—	—	3,217	—	—

[1] Preliminary. *Source: Bureau of Mines*

T.131

Index of Wholesale Price of Oven Foundry Coke F.O.B. at Birmingham, Ala. Base Per Ton 1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1980	439.6	439.6	439.6	439.6	439.6	439.6	439.6	439.6	439.6	439.6	439.6	434.0	439.1
1981	434.0	434.0	434.0	434.0	478.9	478.9	478.9	478.9	478.9	478.9	478.9	478.9	463.9
1982	478.9	485.2	485.2	N.A.	485.2	454.8	467.4	465.9	465.7	463.4	463.4	463.4	470.8
1983	460.5	460.5	452.7	452.7	433.6	433.6	426.8	448.9	448.9	448.1	448.8	410.7	443.8
1984	413.6	433.0	434.1	437.8	436.6	437.2	437.0	432.4	430.8	427.6	427.9	430.2	431.5
1985[1]	434.8	434.5	428.2	425.3	424.8	424.3	423.8	423.7	423.7	422.4	422.4	421.5	425.8
1986[1]	411.6												

[1] Preliminary. *Source: Bureau of Labor Statistics* (0522-0101.99)

T.130

Copper

World mine production of copper in 1985 was preliminarily estimated by the Bureau of Mines as marginally below the 1984 level. The four largest producers were Chile, the U.S., the USSR, and Canada, together providing over half of world output. Production costs in many countries were above world prices, with the notable exception of Chile, the world's least-cost producer.

U.S. crude copper output in 1985 was 9 percent higher than in 1984, according to the American Bureau of Metal Statistics. Yet, the largest U.S. copper mine closed early in 1985, and was followed by several other shutdowns. In the last three years, numerous mine closures have substantially reduced U.S. copper mine capacity. During 1985, 23 mines accounted for 99 percent of U.S. copper mine production, while the major mining states were Arizona, Utah, and New Mexico. U.S. refined copper output in 1985 was 4 percent below the 1984 level. At the end of the year, 8 primary and 7 secondary smelters, 6 primary and 8 secondary refineries, and 7 electrowinning plants were operating.

Major U.S. oil companies continued to sell their copper subsidiaries during 1985. However, several copper firms reported profits for the first time in a few years. This was possible after companies cut production costs by such means as mining only high grade ore deposits, adopting leaching and electrowinning, and by reducing personnel. In 1985, compliance with environmental regulations continued to be costly for the copper industry.

The U.S. is both an importer and exporter of copper. Total U.S. imports declined about 13 percent in 1985 from the near record 1984 levels. Refined copper, as usual, accounted for most of the imports in 1985. The major suppliers of imported copper were Canada and Chile. Total exports are preliminarily estimated by the Bureau of Mines as having expanded by 67 percent in 1985, partly due to a large increase in exports of scraps and concentrates. However, refined exports were estimated as down 49 percent from the year before.

U.S. demand for copper was virtually unchanged in 1985, according to a preliminary estimate by the Bureau of Mines, after a 7 percent increase in consumption during 1984 and a 14 percent increase in 1983. Consumption in 1985 remained below the high annual levels of the 1978–1981 period. In 1985, demand was highest during the first half of the year and fell considerably thereafter. Copper use by the electronics market dropped considerably during the year. Domestic consumption broken down by sector in 1985 was as follows: building construction, 39 percent; electrical and electronic products, 25 percent; industrial machinery and equipment, 15 percent; transportation, 11 percent; and consumer and general products, 10 percent.

U.S. yearend stocks held by refineries, mills, manufacturers, and the Commodity Exchange Inc. (COMEX) fell considerably, by an estimated 46 percent, in 1985.

COMEX copper prices were generally depressed in 1985, with nearby contracts trading during most of the year within 59–64 cents per pound. In April, during the seasonally-intensive demand period, futures made their strongest advances. U.S. producer prices of copper cathode began the year at 65 cents per pound, reached a peak of 70 cents in April, and ended the year at 67–68 cents per pound.

Futures Markets

Copper futures are traded on COMEX in New York, the London Metals Exchange (LME), and MidAmerica in Chicago.

World Mine Production of Copper (Content of Ore) In Thousands of Metric Tons

Year	Australia	Canada[3]	Chile	China	Finland	Japan	Mexico	Peru	Zambia	Poland	Zaire	South Africa	Philippines	United States[3]	USSR	World Total[1]
1979	237.6	636.4	1,063	200	41.1	59.1	107.1	390.7	588.3	325.0	430.4	190.6	298.3	1,444	855[4]	7,691
1980	243.5	716.4	1,068	165.0	36.8	52.6	184.1	366.8	595.8	346.1	539.5	200.7	304.5	1,181	590.0	7,405
1981	231.3	691.3	1,081	170.0	38.2	51.5	232.9	342.1	588.0	315.2	555.1	208.7	302.3	1,538	570.0	7,814
1982	245.3	612.4	1,242	175.0	37.8	50.7	228.2	356.6	567.8	338.0	519.0	188.7	292.1	1,147	560.0	7,583
1983	261.5	653.0	1,257	175.0	39.3	46.0	196.0	322.2	574.5	349.0	535.0	205.0	273.3	1,038	570.0	7,625
1984[2]	236.3	712.4	1,290	180.0	35.0	43.3	180.0	364.1	541.0	360.0	540.0	198.2	226.1	1,091	590.0	7,838
1985[1]	275	710	1,290					400	475	355	540		220	1,050	600	7,805

[1] Estimate. [2] Preliminary. [3] Recoverable. [4] Smelter Production. *Source: Bureau of Mines* T.132

Commodity Exchange Inc. (COMEX) Warehouse Stocks of Copper In Thousands of Short Tons

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1979	179.2	170.8	156.4	133.6	118.3	89.9	70.7	61.5	56.8	57.0	64.9	71.3
1980	107.8	114.1	132.0	145.7	149.8	155.5	167.3	181.7	190.8	185.4	178.6	170.9
1981	179.6	179.3	179.8	173.3	182.4	175.5	170.6	168.8	167.5	171.6	173.1	171.4
1982	187.6	189.3	193.6	195.7	198.5	201.5	202.2	207.4	211.8	207.1	210.3	246.3
1983	274.4	278.5	293.6	306.1	325.9	336.5	347.4	360.1	374.5	389.3	396.1	404.2
1984	409.2	417.7	409.9	403.2	392.3	372.5	361.6	335.6	320.6	310.8	300.7	288.1
1985	276.3	258.2	238.8	224.8	214.3	201.0	186.4	167.7	155.0	149.0	136.4	124.6
1986	120.3	120.1	118.5	116.4	114.5							

Source: Commodity Exchange, Inc. N.Y. (COMEX) T.144

U.S. Salient Statistics of Copper In Thousands of Metric Tons

	New Copper Produced										Stocks—Dec. 31			Appar. Consumption[6]	
	From Domestic Ores						Imports[3]		Exports						
Year	Mines	Smelters	Refineries	From Foreign Ores[2]	Total New	Secondary Recovered[7]	Unmanufactured	Refined	Ore, Concentrate[4]	Refined[5]	N.Y. Commodity Exch	Primary Producers (Refined)	Blister & Materials in Solution	Refined Copper (Reported)	Primary & Old Copper[8]
1975	1,282	1,247	1,167	143	1,309	335	294	133	305	156	91	187	283	1,191	1,526
1976	1,457	1,326	1,291	106	1,396	380	485	346	218	102	182	172	291	1,656	2,036
1977	1,364	1,265	1,280	77	1,357	410	396	351	91	47	167	212	314	1,622	2,032
1978	1,358	1,270	1,327	122	1,449	502	532	403	187	92	163	153	263	1,819	2,321
1979	1,447	1,313	1,413	104	1,517	604	282	204	231	74	90	64	275	1,735	2,432
1980	1,181	994	1,126	89	1,215	613	555	427	107	14	163	49	272	1,862	2,179
1981	1,538	1,295	1,430	114	1,544	598	438	331	151	24	170	151	277	2,025	2,277
1982	1,147	941	1,065	162	1,227	518	513	258	195	31	248	268	253	1,658	1,761
1983	1,038	888	1,004	178	1,182	449	634	460	50	81	371	154	174	1,804	2,014
1984[1]	1,091	990	1,084	116	1,200	465	531	445	69	91	251	122	232	2,036	2,155
1985[1]	1,109	942	1,100	55	1,039	500	520	378	130	38			147	1,899	2,139

[1] Preliminary. [2] Also from matte, etc., refinery reports. [3] For consumption. [4] Blister (copper content). [5] Ingots, bars, etc. [6] Withdrawals from total supply on domestic account. [7] From old scrap only. [8] Old scrap only. *Source: Bureau of Mines* T.133

Consumption of Refined Copper[2] in the United States In Thousands of Metric[4] Tons

	By-Products						By Class of Consumer						
Year	Cathodes	Wire Bars	Ingot & Ingot Bars	Cakes & Slabs	Billets	Other	Wire Mills	Brass Mills	Chemical Plants	Secondary Smelters	Foundries	Miscellaneous	Total Consumption
1975	527.9	722.8	72.5	97.7	75.7	4.1	1,061.3	439.0	.5	4.5	14.0	15.3	1,534.5
1976	846.0	768.0	93.5	123.8	84.0	8.6	1,346.0	574.9	.5	3.1	15.4	19.7	1,991.9
1977	965.5	861.3	90.2	115.0	103.3	11.2	1,511.2	628.6	N.A.	6.6	N.A.	N.A.	2,185.0
1978[4]	1,026.1	794.7	111.9	117.1	114.6	24.9	1,517.4	619.2	.4	7.5	12.4	32.3	2,189.3
1979	1,099.0	701.9	92.1	105.6	129.5	30.4	1,499.6	610.2	.4	6.3	11.9	30.1	2,158.4
1980	960.2	583.0	67.6	84.3	117.4	49.7	1,308.9	511.6	.3	5.0	10.9	25.3	1,862.1
1981	1,198.9	489.2	66.7	121.8	101.9	46.7	1,449.6	536.2	.4	5.4	11.3	22.2	2,025.2
1982	1,211.0	195.1	45.1	92.4	82.2	32.4	1,232.8	393.2	.4	4.4	7.6	19.7	1,658.1
1983	1,448.1	77.4	53.2	115.3	101.8	8.2	1,269.9	500.3	.6	3.2	11.3	18.8	1,803.9
1984[1]	1,635.4	72.1	74.4	127.7	118.5	8.2	1,416.3	578.1	.6	6.9	16.0	18.2	2,036.2
1985[3]							1,377	485.9		2.0			1,899

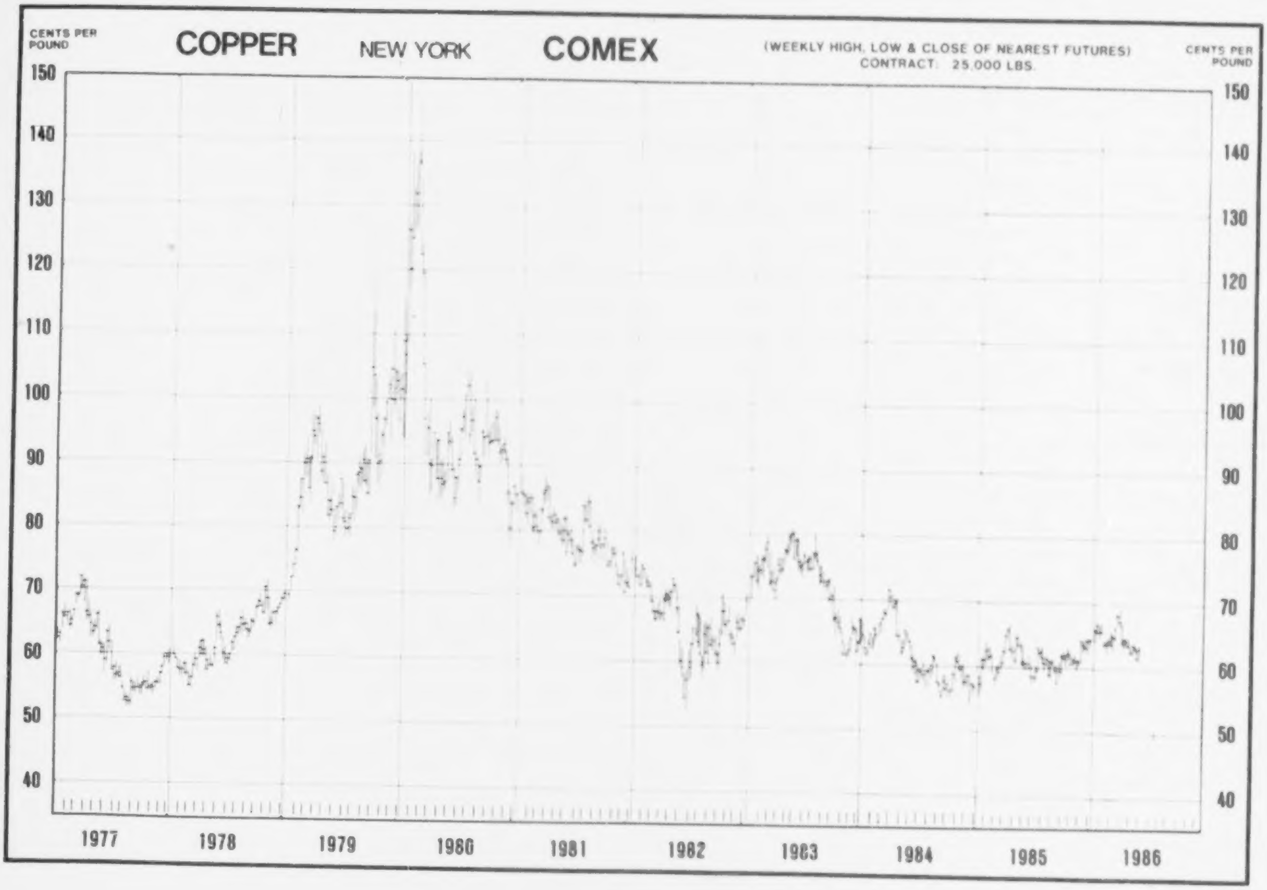
[1] Preliminary. [2] Primary & secondary. [3] Estimate. [4] Data prior to 1978 are in THOUSANDS OF SHORT TONS. *Source: Bureau of Mines* T.134

U.S. Mine Production of Recoverable Copper, by Selected States In Thousands of Metric Tons

Year	Arizona	California	Colorado	Idaho	Michigan	Missouri	Montana	Nevada	New Mexico	Pennsylvania	Tennessee	Utah	Maine	Other States[2]	Grand Total
1976	929.3	.3	2.2	3.1	39.7	10.0	82.7	52.8	156.4	—	10.1	168.2	1.6	.2	1,456.6
1977	838.0	.2	1.7	3.7	38.4	10.6	78.2	60.8	149.4	—	5.6	176.1	1.2	.3	1,304.4
1978	891.4	N.A.	1.2	3.9	N.A.	10.8	67.3	20.5	127.8	—	11.3	186.3	—	37.1	1,357.6
1979	949.0	N.A.	.4	3.6	N.A.	13.0	69.9	N.A.	164.3	—	N.A.	193.1	—	53.3	1,446.6
1980	770.1	N.A.	.5	3.1	N.A.	13.6	37.7	N.A.	149.4	—	N.A.	157.8	—	48.9	1,181.1
1981	1,040.8	N.A.	N.A.	4.2	N.A.	8.4	62.5	N.A.	154.1	—	N.A.	211.3	—	56.8	1,538.2
1982	769.5	N.A.	.6	3.1	N.A.	7.9	65.0	N.A.	N.A.	—	N.A.	189.1	—	111.8	1,147.0
1983	678.2	N.A.	N.A.	3.6	—	7.7	33.3	N.A.	N.A.	—	N.A.	169.8	—	145.5	1,038.1
1984	746.5	N.A.	N.A.	3.7	—	5.8	N.A.	N.A.	N.A.	—	N.A.	N.A.	—	317.6	1,091.3
1985[1]	819.1			3.6			15.1							271.6	1,109.5

[1] Preliminary. [2] Also includes N.A. States. *Source: Bureau of Mines* T.135

COPPER

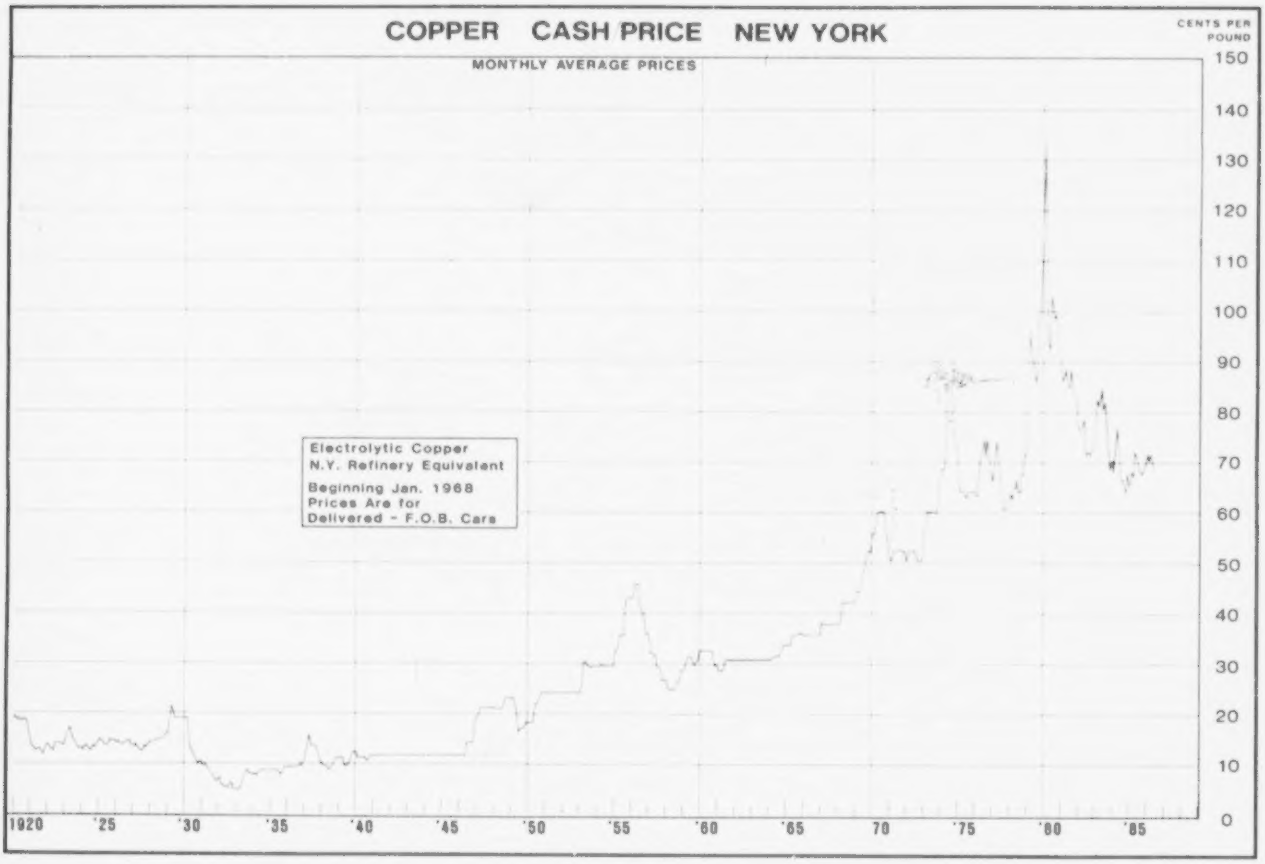


High, Low & Closing Prices of May Copper Futures on the Commodity Exch., Inc., N.Y. (COMEX) ¢ Lb.

Year of Delivery		Year Prior to Delivery										Delivery Year					Life of Delivery Range
		Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	
1981	High	135.00	105.50	101.90	100.00	107.70	103.90	106.80	102.00	100.00	96.80	94.20	87.95	88.30	87.40	81.85	153.00
	Low	98.40	93.60	94.00	90.40	97.20	92.00	94.00	97.20	94.90	82.30	84.75	81.80	79.30	80.10	77.50	77.50
	Close	99.20	100.50	98.40	97.80	99.00	94.35	97.30	98.10	96.20	89.20	87.00	82.55	86.40	81.15	77.85	—
1982	High	100.00	99.65	96.00	94.10	92.80	95.50	87.40	84.90	81.70	80.50	77.70	76.25	71.75	71.25	72.90	115.20
	Low	92.80	94.00	91.35	86.70	85.20	85.80	79.80	79.40	74.85	74.00	73.00	71.10	66.70	66.10	66.65	66.10
	Close	98.85	95.20	93.20	86.80	93.10	87.45	82.10	81.65	77.35	77.30	76.35	71.15	67.55	70.70	66.70	—
1983	High	82.25	81.20	82.70	71.30	75.60	72.00	71.90	71.50	70.85	72.65	77.95	81.45	78.40	78.70	80.90	108.30
	Low	77.00	76.80	73.00	60.80	65.35	63.25	62.40	62.00	64.30	67.00	71.00	75.00	70.80	73.80	76.70	62.00
	Close	78.00	80.70	72.60	67.60	68.65	67.20	62.95	67.95	68.90	70.70	76.60	75.20	75.15	77.40	78.05	—
1984	High	85.40	86.00	87.60	83.80	85.05	83.00	78.95	71.70	70.65	69.40	68.10	67.30	71.80	71.75	65.65	88.60
	Low	78.05	81.70	83.70	80.25	80.60	77.30	69.80	64.90	64.00	64.60	62.50	63.90	65.60	63.90	61.40	61.40
	Close	82.60	84.30	84.80	81.25	82.45	77.60	70.25	66.10	69.15	68.30	65.70	66.10	71.75	64.45	64.55	—
1985	High	71.80	79.10	73.35	71.75	67.10	66.60	65.15	62.75	62.70	60.90	64.40	64.20	63.15	66.55	65.30	92.00
	Low	65.60	72.00	69.10	65.35	61.80	62.00	58.90	58.45	59.05	56.40	56.20	57.95	59.10	60.80	60.60	56.20
	Close	71.75	72.40	70.95	67.35	61.90	66.05	60.55	62.75	59.85	57.85	63.15	59.60	62.60	60.95	62.20	—
1986	High	65.65	68.50	68.00	64.35	66.15	64.70	62.90	63.85	63.45	65.35	68.00	67.50	69.15	66.30		
	Low	62.80	63.55	63.00	61.65	61.50	61.60	60.00	61.15	60.80	61.60	64.50	64.55	63.60	62.15		
	Close	65.65	63.55	63.95	62.00	63.45	63.05	60.55	61.50	62.10	64.45	67.15	66.05	66.15	62.25		
1987	High	70.00	67.75														
	Low	66.00	63.80														
	Close	68.00	63.80														

Source: Commodity Exchange, Inc. of N.Y. (COMEX)

T.141



Producers' Prices of Electrolytic (Wirebar) Copper, Delivered U.S. Destinations In Cents Per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1977	66.13	68.63	72.54	74.41	72.77	70.13	68.10	63.89	60.63	60.63	60.63	62.11	66.72
1978	63.63	63.59	62.35	64.63	64.90	66.78	63.99	67.34	67.63	70.13	71.68	71.73	66.53
1979	76.15	89.41	94.65	98.66	91.04	87.66	86.02	89.94	95.07	98.84	98.44	106.08	92.75
1980	118.05	133.83	106.23	94.61	93.16	92.39	103.10	100.60	98.73	99.41	96.98	89.20	102.19
1981	88.64	86.07	87.32	88.44	86.33	85.68	84.71	87.98	85.63	83.28	82.09	80.94	85.59
1982	79.42	79.35	76.45	76.99	78.78	71.43	71.78	71.83	71.37	71.92	72.28	73.17	74.56
1983	79.03	82.72	81.09	82.44	84.80	80.90	81.81	79.80	76.75	71.58	68.64	70.43	78.33
1984	69.08	69.51	74.18	76.58	71.56	69.19	66.34	66.44	65.39	63.92	67.71	65.28	68.77
1985	66.23	68.32	67.19	72.17			68.53	68.32	67.66		68.37	70.10	68.85
1986	71.57	70.21	71.78	70.55									

Source: American Metal Market

T 136

Month End Open Interest of Copper Futures at COMEX In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1979	53,776	56,481	55,719	48,857	45,572	43,992	39,372	58,966	63,825	58,451	62,659	64,363
1980	63,132	60,834	41,546	31,618	31,923	32,454	37,303	38,497	46,737	54,201	52,666	44,225
1981	47,300	47,641	48,699	49,784	52,527	52,325	54,011	54,781	57,153	58,054	52,654	52,226
1982	56,469	60,458	62,817	67,700	74,353	65,938	66,049	64,615	69,845	79,365	85,824	92,146
1983	113,044	121,875	116,706	105,451	99,198	101,350	109,829	106,882	108,357	104,204	104,087	106,898
1984	115,648	100,663	107,730	96,293	92,254	82,836	82,946	84,991	83,606	88,418	83,433	86,502
1985	94,398	82,182	82,195	85,676	82,369	84,913	78,227	75,187	77,106	75,868	76,106	77,790
1986	89,213	79,497	91,606	73,828								

Source: Commodity Exchange, Inc. of N.Y. (COMEX)

T 142

COPPER

U.S. Imports (for Consumption) of Copper (Unmanufactured), by Sources and Types

In Thousands of Metric[2] Tons

Year	Ore & Concentrates	Blister	Matte	Refined	Scrap	Australia	Canada	Mexico	W. Germany	Chile	Peru	Philippines	Yugoslavia	Zaire	Zambia	South Africa	Total U.S. Imports
1976	70.7	44.5		381.5	19.7	7.0	148.0	9.1	—	102.0	40.1	15.0	45.6		128.3	4.9	534.7
1977	42.1	46.2		390.8	19.9	3.6	131.2	15.1	10.5	119.7	62.3	18.1	16.8		77.9	11.0	516.7
1978[2]	20.9	78.7	10.7	414.7	21.4	10.0	77.3	5.8	8.5	175.8	94.8	12.0	10.9	1.8	79.8	15.5	546.4
1979	22.4	68.1	.4	215.2	22.2	2.1	89.0	8.5	6.1	116.2	52.8	15.4	3.4	1.5	15.9	2.0	328.3
1980[4]	52.4	44.5	.4	426.9	22.8	5.4	152.4	8.3	.5	126.6	52.5	8.9	4.5	5.0	64.9	2.2	547.0
1981	39.1	30.1	2.7	330.6	27.0	1.5	108.5	23.8	—	137.8	52.0	20.4	2.4	24.7	44.1	—	429.6
1982	118.1	97.4	4.1	258.4	28.1	3.7	111.0	64.4	—	233.0	26.8	27.1	—	19.6	10.5	—	506.0
1983	90.6	46.4	3.3	459.6	23.1	—	153.8	44.7	—	292.4	38.9	11.4	—	29.1	24.7	14.0	622.9
1984[1]	11.1	38.9	2.1	444.7	23.0	3.8	177.6	9.5	—	149.4	63.0	6.7	—	28.0	59.5	.5	519.8
1985[3]	2.9	13.0	4.0	377.7	44.2												441.7

Note: Includes refined, black, blister, & converter; scrap; & copper content of ore, matte, and regulus. [1] Preliminary. [2] Data prior to 1978 are in THOUSANDS OF SHORT TONS. [3] Estimate. [4] Prior to 1980, data is for general imports. *Source: Department of Commerce; Bureau of Mines*

T 137

United States Exports of Refined Copper[1] to Selected Countries

In Thousands of Metric[3] Tons

Year	Total U.S. Exports	United Kingdom	China Mainland	Belgium	Brazil	Canada	France	W. Germany	India	Italy	Netherlands	Taiwan	Sweden	Mexico	Japan
1976	111.9	20.3	—	1.0	2.8	4.7	21.0	26.8	—	15.6	5.0	—	5.0		4.7
1977	51.5	7.3	—	3.2	.1	8.1	9.8	10.2	—	6.2	2.4	—	1.5		1.5
1978[3]	91.9	13.8	3.0	2.5	3.3	5.1	7.0	18.1	—	19.0	3.0	.9	4.2	1.0	10.0
1979	73.7	6.5	3.1	2.5	6.2	4.5	12.5	3.5	—	11.4	6.6	1.2	2.8	.5	2.0
1980	14.5	2.0	—	.6	1.5	2.9	1.9	.8	.1	1.4	.6	.3	.1	.9	.8
1981	24.4	1.3	—	—	.8	6.4	1.1	1.1	—	.7	—	—	—	7.2	3.9
1982	30.6	1.3	16.1		.4	2.8	1.1	1.9	.1	.1	3.3				.8
1983	81.4	.4	2.2	.7	—	1.7	.6	2.2			60.6	1.0	.1	5.3	5.7
1984	91.4	.7	.1			2.9	.8	1.2			6.4	3.2		2.8	71.2
1985[2]	37.9														

[1] Bars, ingots or other forms. [2] Preliminary. [3] Data prior to 1978 are in THOUSANDS OF SHORT TONS. *Source: Department of Commerce*

T 138

Dealers' Buying Price of No. 2 Heavy Copper Scrap at N.Y.

In Cents Per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1976	36.98	37.92	39.76	41.95	44.10	43.66	46.93	45.73	43.71	38.48	35.00	34.10	40.69
1977	34.00	35.73	41.50	40.63	39.62	35.91	35.00	34.04	33.00	33.00	33.00	33.00	34.23
1978	34.00	35.61	35.59	39.73	39.18	41.77	40.50	41.89	42.50	44.70	45.40	44.75	40.47
1979	47.07	58.82	65.46	68.93	63.14	59.05	57.79	58.85	62.03	62.89	62.25	65.00	60.94
1980	74.91	82.35	70.30	60.18	57.60	56.50	65.36	64.88	64.21	65.37	66.08	58.36	65.51
1981	57.60	55.50	57.14	59.50	58.20	55.32	52.68	53.50	53.00	50.16	48.08	46.00	53.89
1982	57.43	57.20	53.76	53.99	53.38	43.24	47.12	46.49	47.83	48.79	48.61	50.75	50.73
1983	42.55	46.71	51.50	51.50	53.74	54.50	54.50	53.54	51.74	48.12	43.30	42.50	49.52
1984	41.17	40.60	43.59	44.50	43.30	42.21	39.36	38.50	38.08	36.20	34.50	35.67	39.81
1985	37.50	37.50	37.50	37.50	37.50	37.50	37.50	37.50	37.50	37.50	37.50	37.50	37.50
1986	38.23	39.50	39.50	39.50									

Source: American Metal Market

T 140

Volume of Trading of Copper Futures at COMEX

In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1978	75,219	88,765	119,423	112,834	117,745	135,363	98,274	160,456	95,360	158,815	151,284	95,150	1,408,688
1979	154,378	228,837	234,044	234,554	212,934	186,097	139,912	210,387	208,869	200,123	163,074	145,732	2,301,033
1980	243,069	205,232	185,692	121,708	102,054	130,678	148,698	125,062	169,370	132,850	127,110	156,556	7,848,080
1981	116,295	131,960	143,662	140,605	104,376	158,396	125,109	190,763	148,456	114,960	144,453	128,345	1,647,380
1982	112,118	166,562	135,434	179,854	174,157	249,276	197,828	245,973	169,909	231,771	273,546	226,257	2,362,625
1983	306,001	381,645	320,574	278,655	226,482	309,540	213,832	295,470	188,201	230,063	289,111	147,340	3,186,914
1984	199,461	259,881	217,635	269,765	196,382	223,551	152,424	215,226	149,465	170,568	279,151	172,856	2,514,311
1985	254,052	261,784	167,686	310,487	215,079	209,506	146,396	195,882	138,803	178,728	200,142	166,007	2,444,552
1986	190,983	206,513	197,818	240,770									

Source: Commodity Exchange, Inc. of N.Y. (COMEX)

T 143

Exports of Refined Copper from the United States In Thousands of Short Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1975	19.7	20.8	14.3	24.9	21.3	13.5	9.8	6.7	11.5	12.5	9.0	8.4	172.4
1976	11.2	8.5	10.8	10.9	8.6	9.4	8.7	9.4	10.0	11.5	7.3	6.8	113.1
1977	3.7	1.8	3.6	5.2	5.2	5.2	5.5	1.6	4.4	4.6	5.0	6.9	52.7
1978	4.7	4.9	11.9	7.3	11.4	10.1	7.2	10.2	22.2	5.3	5.3	8.8	109.3
1979	9.8	9.4	11.6	10.0	8.9	8.7	4.8	2.9	2.9	2.7	7.3	1.5	88.7
1980	1.0	1.4	1.9	1.5	1.5	2.0	1.9	.9	.4	.5	1.0	3.4	17.2
1981	2.9	2.5	5.8	1.2	.9	3.5	1.3	1.7	3.0	.7	2.1	1.8	28.1
1982	.4	.6	.9	1.0	1.6	1.6	2.9	5.4	9.9	8.6	.8	1.1	35.0
1983	13.4	.7	1.5	2.0	3.2	2.9	18.1	13.4	4.1	14.2	2.8	11.2	87.5
1984	17.5	14.4	8.9	6.8	14.7	1.6	14.0	2.3	2.2	1.9	2.8	6.9	93.9
1985[1]	2.0	3.3	7.7	3.7	1.3	3.9	5.7	6.3	1.0	1.3	.9	1.1	43.9
1986[1]	1.3												

[1] Preliminary. *Source: Department of Commerce* T.139

Refined Copper Stocks in the U.S.A. In Thousands of Short Tons (Recoverable Copper Content)

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1975	194.9	242.7	259.2	297.8	320.6	334.6	338.2	349.5	341.8	312.3	314.9	324.6
1976	360.7	363.4	370.9	347.8	343.0	325.2	317.1	350.4	355.8	356.1	372.8	416.5
1977	473.8	469.3	487.0	472.3	442.1	447.6	435.0	408.9	370.6	409.4	418.0	456.9
1978	471.1	488.7	491.6	470.2	480.5	465.5	464.0	430.9	418.0	405.9	416.4	408.9
1979	367.0	318.4	287.5	262.1	237.4	197.8	176.0	174.6	158.0	154.6	148.6	167.3
1980	186.3	203.5	228.2	237.1	269.1	277.3	295.7	310.6	301.0	274.6	265.0	246.0
1981	253.0	261.6	249.4	236.8	245.5	243.4	264.7	276.9	276.0	275.5	281.6	301.2
1982	338.6	351.9	375.9	387.3	409.8	422.5	448.1	463.7	449.9	436.2	438.2	470.8
1983	484.5	489.6	501.6	508.9	524.1	519.4	498.7	509.0	522.7	509.1	514.2	505.2
1984	475.3	497.8	499.6	483.3	478.3	463.4	483.2	493.4	490.7	467.1	475.2	457.3
1985[1]	469.7	452.9	380.9	368.2	358.4	363.2	344.1	331.4	310.9	275.7	257.3	264.1
1986[1]	270.7	271.0	261.6	242.0								

[1] Preliminary. *Source: American Bureau of Metal Statistics, Inc.* T.145

Refined Copper Stocks Outside the U.S.A. In Thousands of Short Tons (Recoverable Copper Content)

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1975	591.2	628.8	624.5	655.8	723.1	766.0	784.7	861.5	933.4	1,007	1,072	1,108
1976	1,135	1,150	1,149	1,086	1,048	1,045	1,040	1,080	1,112	1,102	1,102	1,141
1977	1,117	1,158	1,200	1,166	1,183	1,185	1,195	1,210	1,229	1,247	1,240	1,225
1978	1,201	1,231	1,139	1,139	1,104	1,099	1,052	1,059	1,001	960.2	962.0	963.1
1979	942.2	878.2	862.4	765.1	758.8	756.7	727.2	687.1	696.6	648.2	635.4	641.3
1980	619.5	598.3	560.9	534.6	516.5	525.9	531.2	530.9	553.2	527.9	489.1	472.6
1981	476.2	485.2	471.0	463.0	458.8	449.8	446.0	454.9	454.7	433.4	419.4	403.0
1982	432.5	446.3	448.4	459.6	452.0	458.7	479.3	492.0	503.6	522.7	575.1	642.9
1983	699.9	760.8	766.4	759.1	795.5	780.0	722.2	683.0	757.4	767.2	765.2	810.4
1984	832.5	817.5	730.0	653.0	618.5	519.3	551.9	526.5	516.0	493.9	483.9	430.0
1985[1]	425.0	420.7	385.7	361.9	364.6	380.4	368.8	464.0	546.7	558.4	533.6	486.6
1986[1]	502.8	504.5	466.2									

[1] Preliminary. *Source: American Bureau of Metal Statistics, Inc.* T.150

COPPER

Refined Copper Production Outside the U.S.A. In Thousands of Short Tons (Recoverable Copper Content)

Year	Refined													Crude	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Primary	Secondary
1977	358.1	352.1	380.2	363.0	383.5	386.7	361.7	379.7	372.0	367.4	388.5	393.5	4,486	—5,046—	
1978	387.3	344.0	395.9	348.7	401.9	388.1	371.9	348.4	350.0	381.9	364.5	351.5	4,434	—4,868—	
1979	359.8	347.3	360.1	336.9	345.1	364.9	358.1	377.2	366.5	400.9	388.0	382.6	4,388	—4,791—	
1980	384.2	382.8	408.4	398.3	418.7	396.8	392.2	402.9	386.1	394.4	371.8	389.9	4,727	—4,968—	
1981	359.7	347.9	393.6	390.0	388.0	391.4	377.0	377.7	378.8	379.9	366.9	393.8	4,545	—4,891—	
1982	398.2	381.0	442.6	391.8	365.2	403.9	368.4	365.8	386.1	405.8	411.8	372.6	4,693	—5,065—	
1983	386.8	366.3	411.8	400.0	401.2	418.0	381.9	404.3	395.9	404.5	393.1	409.5	4,773	—5,201—	
1984	380.3	376.9	412.4	375.1	374.1	382.5	357.4	381.5	373.8	405.2	380.8	358.7	4,559	—5,114—	
1985[1]	371.6	338.8	388.5	376.1	377.4	351.4	384.2	385.6	380.4	387.6	385.5	394.9	4,522	—5,217—	
1986[1]	387.1	373.4													

[1] Preliminary. *Source: American Bureau of Metal Statistics, Inc.* T.148

Refined Copper Production in the U.S.A. In Thousands of Short Tons (Recoverable Copper Content)

Year	Refined													Crude	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Primary	Secondary
1977	140.9	140.9	162.3	150.6	166.2	152.4	52.2	46.3	124.4	120.6	137.3	113.0	1,507	—1,386—	
1978	129.0	112.5	143.2	141.0	145.3	135.1	96.1	138.9	144.9	163.4	162.4	133.3	1,645	—1,434—	
1979	135.6	135.8	152.2	149.8	154.6	149.4	132.3	144.9	137.5	148.7	170.0	155.5	1,766	—1,542—	
1980	161.0	149.5	162.3	170.4	158.7	167.2	52.4	28.7	27.3	61.0	85.8	136.9	1,361	—1,205—	
1981	133.5	116.3	152.2	155.8	135.0	158.3	131.7	124.0	140.5	127.3	124.9	147.9	1,647	—1,429—	
1982	117.5	123.4	121.5	116.4	107.5	108.6	81.8	77.6	80.6	80.1	92.1	90.8	1,198	—1,026—	
1983	97.3	100.6	131.9	125.5	112.2	114.5	73.1	90.6	91.2	110.4	89.1	100.2	1,237	—1,077—	
1984	98.8	100.7	117.1	120.5	127.9	125.6	123.0	126.1	101.8	119.5	95.4	101.4	1,358	—1,270—	
1985[1]	113.5	101.2	118.8	122.4	124.1	100.8	99.9	96.8	93.0	112.9	119.7	106.7	1,310	—1,387—	
1986[1]	109.5	98.3	103.5												

[1] Preliminary. *Source: American Bureau of Metal Statistics, Inc.* T.149

Refined Copper Deliveries to Fabricators in the U.S.A.
In Thousands of Short Tons (Recoverable Copper Content)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1977	166.6	138.2	202.0	195.6	185.3	192.4	104.5	100.6	100.5	145.7	135.9	141.0	1,808
1978	137.7	141.3	190.2	148.7	175.9	159.8	133.4	168.9	179.2	170.4	177.7	179.7	1,963
1979	191.1	174.8	193.5	182.4	204.7	192.4	166.4	179.3	157.4	190.4	161.4	156.7	2,151
1980	173.5	153.7	193.5	167.8	176.3	175.0	98.7	85.0	83.7	106.6	128.7	154.5	1,697
1981	153.0	154.2	196.5	165.1	169.1	158.8	150.6	152.7	157.5	159.5	131.6	131.2	1,880
1982	134.6	112.2	131.5	114.2	121.0	111.4	106.2	110.6	131.8	113.3	78.4	119.2	1,384
1983	126.2	141.1	185.3	156.0	165.9	164.4	91.0	105.2	141.2	137.1	110.2	145.3	1,669
1984	118.3	146.1	185.7	184.4	190.7	163.8	150.7	159.3	166.0	167.1	149.5	124.2	1,906
1985[1]	170.2	188.7	159.8	153.0	144.3	135.2	122.3	130.0	153.3	151.5	137.9	120.7	1,767
1986[1]	130.5	126.4	144.3										

[1] Preliminary. *Source: American Bureau of Metal Statistics, Inc.* T.147

Refined Copper Deliveries to Fabricators Outside the U.S.A.
In Thousands of Short Tons (Recoverable Copper Content)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1977	331.6	305.6	405.0	342.6	364.9	360.0	326.5	344.9	339.8	350.7	374.0	390.8	4,236
1978	338.5	370.0	422.6	372.1	400.8	426.0	362.4	402.9	382.7	376.8	360.2	376.8	4,592
1979	424.2	395.9	460.4	342.0	349.1	383.3	376.8	357.7	408.5	390.2	377.6	386.4	4,658
1980	386.2	403.2	400.0	407.6	396.9	376.6	357.3	346.7	389.5	406.5	374.4	375.8	4,653
1981	336.8	353.7	383.2	385.4	380.8	382.7	346.0	355.9	393.4	369.5	373.9	364.5	4,426
1982	373.4	380.1	423.6	387.4	348.3	365.4	341.4	342.8	354.9	343.5	331.3	301.6	4,294
1983	303.2	322.9	371.1	325.7	392.2	454.4	407.4	308.3	360.7	389.4	350.2	397.4	4,383
1984	375.0	448.8	477.8	377.1	453.1	358.8	372.5	371.5	382.7	394.6	420.7	360.6	4,793
1985[1]	356.6	372.1	408.2	369.8	379.8	395.9	300.4	319.9	384.6	422.0	419.6	375.9	4,505
1986[1]	375.4	401.1											

[1] Preliminary. *Source: American Bureau of Metal Statistics, Inc.* T.146

Corn

World production of coarse grains (corn, sorghum, barley, rye, oats, millet, and mixed grain) in 1985/86 was estimated at 843.9 million tonnes, up 4 percent from the previous year, according to USDA in April 1986. Global output of corn, the major coarse grain, was preliminarily placed at 480.8 million tonnes, 5 percent above the 1984 level. The U.S. was the leading corn producer, providing about 46 percent of world output, followed by China, the EC, Brazil, and Argentina. Global utilization of corn in 1985/86 was estimated by USDA at 424.2 million tonnes, 3 percent below the previous year. The U.S. was the largest corn consumer, accounting for about 31 percent of world use; China, the Soviet Union, the EC, and Japan were other major users.

World corn exports in 1985/86 were expected to fall about 8 percent to an estimated 66.6 million tonnes. The decline reflected lower estimated U.S. shipments, which dropped 21 percent to 36.8 million tonnes. Meanwhile, Argentine corn exports were forecast to rise 29 percent to 9.3 million tonnes, while Chinese shipments were expected to remain about the same at 4.2 million tonnes. The EC, which both exports and imports corn, was forecast to increase its corn exports 17 percent to 7.5 tonnes in 1985/86.

The world's largest corn importers are Japan and the USSR. In 1985/86, Japanese corn purchases were forecast at 14.3 million tonnes, up 2 percent from the year before, while the USSR was expected to import 10 million tonnes, off 49 percent from the year before. Reduced Soviet purchases were the result of improved grain and forage crops and lower grain feeding to livestock (through substitution of roughage feed).

Global carryover stocks of corn were expected to double in 1985/86 to 110.6 million tonnes, as a result of increased crop production and lower exports.

U.S. corn production in 1985/86 was a record 8.865 billion bushels, up 16 percent from the previous year and 8 percent from the 1982 record. Area planted was 83.2 million acres, 3 percent above the year before and 38 percent above 1983/84 when the PIK program was in effect. The average yield was 116.6 bushels per acre, the largest ever, surpassing the 1982/83 record by 3 percent. Harvested acreage was 74.8 million acres, 90 percent of planted acreage. The portion of planted land that was harvested was slightly higher than in recent years, indicating less abandonment and a smaller share left for silage.

Total domestic corn utilization in 1985/86 was forecast by USDA to increase marginally to 5.23 billion bushels. Of this, animal feed was expected to account for 78 percent or 4.10 billion bushels, slightly below the previous year's level. The number of grain consuming animal units (GCAU) in 1985/86 was estimated to be slightly lower than the year before, as liquidation of cattle and hog herds more than offset increased poultry numbers. Furthermore, USDA estimated that new crop (1986/87) wheat—low priced because of a reduced loan rate—would cut into feeding of 1985/86 crop corn. Total food, seed, and industrial use of corn was forecast at 1.13 billion bushels, up 6 percent from the previous season. Use of high fructose corn syrup (HFCS), having increased substantially in recent years (particularly due to strong demand by the soft drink industry), continued to grow.

U.S. corn exports were forecast by USDA at 36.8 million tonnes, down from 46.7 million the previous season, primarily because of a sharp decline in sales to the Soviet Union and reduced shipments to Japan, the EC, and South Africa. The U.S. was faced with strong competition from corn sales by Argentina and other exporters' sales of various feed items, including feed quality wheat and manioc. However, one bright spot in the U.S. export picture was an expansion in corn sales to Brazil, which had a delayed harvest and planned to build stocks.

Because of sluggish U.S. exports and reduced 1985/86 corn prices, entries of corn in the 1985 government loan program were substantial. This helped remove supplies from the free market and provided some support for prices. Yet, both cash and futures prices of 1985-crop corn were generally below the loan rate.

U.S. 1985/86 year-end corn stocks were forecast by USDA in April 1985 at a record 3.57 billion bushels, more than twice the previous year's level.

U.S. Government Price Support

The loan rate for 1986-crop corn was reduced to $1.92 from $2.55 in 1985. The 1986 target price remains the same as in 1985 at $3.03. An acreage reduction of 20 percent (including a 2.5 percent paid diversion) is mandated for producers participating in the 1986 government corn program.

Futures Markets

A 5,000 bushel corn futures contract is traded on the Chicago Board of Trade and a 1,000 bushel contract on the MidAmerica Commodity Exchange in Chicago.

World Production of Corn or Maize In Millions of Metric Tons

Crop Year	United States	Argentina	Brazil	Mexico	South Africa	France	China	India	Italy	Bulgaria	Hungary	Yugoslavia	Romania	Indonesia	USSR	World Total
1979–0	201.7	6.4	20.2	9.2	10.8	10.4	60.0	5.6	6.2	3.2	7.3	10.1	12.4	3.6	8.4	424.2
1980–1	168.6	12.9	22.6	10.4	14.6	9.2	62.6	7.0	6.4	2.3	6.5	9.3	10.3	4.0	9.5	406.8
1981–2	206.2	9.6	22.9	12.5	8.4	9.0	59.2	6.9	7.2	2.4	7.0	9.8	11.9	4.5	8.0	439.5
1982–3	209.2	9.0	19.5	7.0	4.1	10.4	60.3	6.5	6.8	3.4	7.8	11.1	12.6	3.2	13.5	438.7
1983–4[1]	106.0	9.2	21.0	9.3	4.4	10.4	68.2	7.9	6.7	3.3	6.5	10.7	12.0	5.1	12.0	346.0
1984–5[2]	194.9	11.5	22.0	9.9	7.5	10.0	73.4	7.2	6.9	3.1	6.5	11.0	11.0	4.0	12.5	457.3
1985–6[2]	225.2	13.0	19.0	10.0	8.5		64.0								12.5	478.1

[1] Preliminary. [2] Estimated. *Source: Foreign Agricultural Service, U.S.D.A.* T.151

CORN

World Coarse Grains Supply & Demand In Millions of Metric Tons/Hectares

Crop Year	Area Harvested	Yield	Production	World Trade[1]	Utilization Total[2]	Ending Stks[3]	Stocks as % of Util
1980/81	342.4	2.14	732.9	108.0	743.0	82.8	11.3
1981/82	350.2	2.20	769.9	96.6	739.8	112.9	15.2
1982/83	339.2	2.30	779.2	89.9	753.5	138.6	18.3
1983/84	334.3	2.05	685.4	92.0	757.2	66.8	8.9
1984/85[4]	338.7	2.39	808.2	101.6	778.4	96.6	12.4
1985/86[5]	343.1	2.46	842.7	92.3	779.6	159.6	20.6

Note: "Stocks as percent of utilization" represent the ratio of marketing year ending stocks to total utilization. [1] Trade data as expressed in this table exclude intra-EC trade. The trade year is October/September. [2] For countries for which stocks data are not available (excluding the USSR) utilization estimates represent "apparent" utilization, i.e., include annual stock level adjustments. [3] Stocks data are based on an aggregate of differing local marketing years and should not be construed as representing world stock levels at a fixed point in time. Stocks data are not available for all countries and exclude those such as the People's Republic of China and parts of Eastern Europe. World Stock Levels have been adjusted for estimated year-to-year changes in USSR grain stocks, but do not purport to include the absolute level of USSR grain stocks. [4] Preliminary. [5] Projection. *Sources: Prepared or estimated on the basis of official statistics of foreign governments, other foreign source materials, reports of U.S. Agricultural Attaches and Foreign Service Officers, results of Office Research and Related Information.* 150a

Acreage and Supply of Corn in the United States In Millions of Bushels

Year Beginning October	Planted All Purposes	Harvested For Grain	Harvested For Silage	Harvested For Forage	Yield, Per Harv. Acre-Bus.	Carry-over, October 1 Farm	Carry-over, October 1 CCC Bins	Carry-over, October 1 Others[3]	Carry-over, October 1 Total	Grain Production	Imports[2]	Total (All Supply Grain)
	In Millions of Acres											
1979–0	81.4	72.4	8.0	.4	109.5	794.5	— 509.5—		1,304	7,928	1.1	9,233
1980–1	84.0	73.0	9.3	.6	91.0	920.5	— 696.6—		1,617	6,639	1.2	8,258
1981–2	84.1	74.5	8.3	.4	108.9	489.9	— 544.4—		1,034	8,119	1.2	9,154
1982–3	81.9	72.7	8.3	.3	113.2	1,243.3	— 930.7—		2,174	8,235	.9	10,410
1983–4	60.2	51.5	7.8	.3	81.1	1,510.4	—1,609.5—		3,120	4,175	2.5	7,297
1984–5	80.5	71.9	7.5	.3	106.7	347.9	— 375.4—		723	7,674	3.3	8,401
1985–6[1]	83.3	75.1	7.2	.3	118.0	678.9	— 701.8—		1,381	8,865	1.8	10,248
1986–7[4]	78.1											

[1] Preliminary. [2] Includes grain equivalent of cornmeal & flour. [3] Interior mills & elevators and terminal mkts. [4] Estimate. *Source: Commodity Economics Division, U.S.D.A.* T.152

U.S. Corn Supply and Disappearance In Millions of Bushels

Year & Periods Begin. Oct. 1	Supply: Beginning Stocks	Supply: Production	Supply: Imports	Supply: Total Supply	Disappearance, Domestic Use: Food	Disappearance, Domestic Use: Alcoh. Beverages	Disappearance, Domestic Use: Seed	Disappearance, Domestic Use: Feed & Residual	Disappearance, Domestic Use: Total	Disappearance: Exports	Disappearance: Total Disappearance	Ending Stocks: Gov't. Owned[1]	Ending Stocks: Privately Owned[2]	Ending Stocks: Total
1981–2	1,034	3,119	1.2	9,154	709.4	82.7	19.4	4,202	5,013	1,967	6,980	302.4	1,872	2,174
Oct.–Dec.	1,034	8,119	.4	9,153	153.2	16.8	—	1,517	1,687	545.5	2,233	247.6	6,673	6,921
Jan.–Mar.	6,921	—	.3	6,921	128.4	20.2	3.9	1,181	1,333	489.4	1,823	261.7	4,837	5,098
Apr.–May	5,098	—	.1	5,098	119.4	15.2	12.1	662.5	809.2	409.0	1,218	269.7	3,610	3,880
June–Sept.	3,880	—	.4	3,881	308.4	30.5	3.4	841.2	1,184	523.0	1,707	302.4	1,872	2,174
1982–3	2,174	8,235	.9	10,410	774.3	109.0	14.5	4,522	5,420	1,870	7,290	1,166	1,954	3,120
Oct.–Dec.	2,174	8,235	.3	10,409	175.2	27.9	—	1,489	1,692	512.7	2,205	429.0	7,776	8,205
Jan.–Mar.	8,205	—	.2	8,205	140.0	28.0	1.3	1,330	1,499	507.9	2,007	483.4	5,715	6,198
Apr.–May	6,198	—	.1	6,198	125.0	17.6	10.3	812.8	965.7	308.5	1,274	491.7	4,432	4,924
June–Sept.	4,924	—	.3	4,924	334.1	35.5	2.9	890.9	1,263	540.9	1,804	1,166	1,954	3,120
1983–4[3]	3,120	4,175	2.5	7,297	868.9	85.0	18.9	3,736	4,709	1,865	6,574	334.0	389.2	723.2
Oct.–Dec.	3,120	4,175	.3	7,295	200.3	19.3	—	1,634	1,853	528.9	2,382	1,230	3,683	4,913
Jan.–Mar.	4,907	—	.8	4,914	160.0	22.4	1.1	969.1	1,153	509.9	1,663	1,198	2,053	3,251
Apr.–May	3,247	—	.7	3,252	155.0	16.7	15.5	579.9	767.1	339.7	1,107	818.6	1,327	2,145
June–Sept.	2,143	—	.7	2,146	353.6	26.6	2.3	553.4	935.9	486.7	1,423	334.0	389.2	723.2
1984–5[4]	723.2	7,674	3.3	8,401	—1,046—		—	4,117	5,182	1,838	7,020	271.6	1,109	1,381
Oct.–Dec.	723.2	7,674	.9	8,398	211.0	24.2	—	1,693	1,928	605.9	2,534	295.5	5,569	5,864
Jan.–Mar.	5,804	—	.3	5,865	—200.8—		.6	1,150	1,351	548.1	1,899	255.9	3,710	3,966
Apr.–May	3,966	—	1.0	3,967	—190.1—		15.0	618.9	824.0	307.0	1,131	253.9	2,582	2,836
June–Sept.	2,836	—	1.1	2,833	—419.5—		3.8	654.4	1,078	377.1	1,455	271.6	1,109	1,381
Oct.–Dec. '85	1,381	8,865	1.2	10,247	—225.0—		—	1,600	1,855	515.5	2,370			7,877

[1] Uncommitted inventory. [2] Includes quantity under loan & farmer-owned reserve. [3] Preliminary. [4] Estimate. *Source: Commodity Economics Division, U.S.D.A.* T.154

Corn Production Estimates and Cash Prices in the U.S.

Crop Year	Corn for Grain Production Estimates							St. Louis No. 2 Yellow	Los Angeles No. 2 Yel.	Season Farm Avg. Price[1]	K.C. White No. 2	Value of Production (Million Dollars)
	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1	Final					
	In Thousands of Bushels							$ per bushel				
1976–7	6,552,665	6,186,979	5,891,823	5,865,243	6,063,459	6,216,032	6,289,169	2.25	2.86	2.15	2.91	13,524
1977–8	6,330,668	6,092,054	6,229,084	6,303,034	6,366,864	6,357,424	6,505,041	2.23	2.99	2.02	3.30	13,107
1978–9	6,145,421	6,503,190	6,797,650	6,823,720	6,890,310	7,081,849	7,267,827	2.51	3.39	2.25	2.93	16,281
1979–0	6,662,681	7,108,938	7,268,175	7,390,365	7,585,535	7,763,771	7,928,139	2.73	3.74	2.52	4.70	19,904
1980–1	7,284,036	6,645,842	6,534,370	6,466,622	6,461,244	6,647,534	6,639,396	3.35	4.48	3.11	4.96	20,571
1981–2	7,115,069	7,734,941	7,940,421	8,081,444	8,097,231	8,200,951	8,118,650	2.61	3.92	2.50	2.60	20,406
1982–3	——	8,315,088	8,318,678	8,314,938	8,329,808	8,397,334	8,235,101	2.98	3.93	2.68	3.35	22,070
1983–4	——	5,236,558	4,390,443	4,259,408	4,120,983	4,203,777	4,174,678	3.45	4.22	3.25	4.70	13,568
1984–5[2]	——	7,667,721	7,551,991	7,497,831	7,527,206	7,649,995	7,674,020	2.75		2.62		20,106
1985–6[2]		8,265,554	8,468,504	8,602,994	8,716,534	8,865,006		2.48		2.40		21,985

[1] Includes an allowance for unredeemed loan & purchase agreement deliveries valued at the average loan rate. [2] Preliminary. *Source: Economic Research Service; Crop Reporting Board, U.S.D.A.*

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Production of Corn (For Grain) in the United States, by States In Millions of Bushels

Year	Illinois	Indiana	Iowa	Kansas	Kentucky	Michigan	Minn.	Missouri	Nebraska	No. Car.	Ohio	Pa.	South Dakota	Wisconsin	Texas
1977	1,163	633.4	1,092	161.3	132.3	197.2	600.0	201.4	648.5	88.7	380.1	106.7	126.9	291.2	161.7
1978	1,240	669.6	1,478	153.0	119.9	194.4	643.8	200.1	762.8	121.6	379.1	115.9	177.6	294.0	144.0
1979	1,414	675.4	1,664	172.0	132.6	237.5	606.0	240.0	822.3	128.4	417.5	121.6	210.9	317.2	132.3
1980	1,066	602.9	1,463	110.9	103.6	247.0	610.1	109.7	603.5	103.8	440.7	96.0	121.9	348.4	117.0
1981	1,454	654.0	1,759	148.1	149.0	273.6	744.7	213.4	791.2	140.9	360.0	134.4	180.6	378.0	127.5
1982	1,499	790.0	1,578	139.1	154.5	293.2	734.5	199.0	748.0	155.4	456.0	126.1	193.7	361.8	119.7
1983	624.1	340.9	743.9	85.6	46.1	165.6	367.1	72.9	470.5	76.8	224.0	72.5	104.4	223.1	104.8
1984	1,247	705.5	1,445	119.4	146.0	220.1	689.1	154.4	806.2	145.8	460.2	148.5	186.3	344.5	144.2
1985[1]	1,535	756.5	1,707	140.4	159.1	286.7	724.5	272.8	953.6	128.4	511.8	151.8	252.0	358.5	156.5

[1] Preliminary, December estimate. *Source: Crop Reporting Board, U.S.D.A.*

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Corn (Shelled & Ear) Stocks in the United States In Millions of Bushels

Year	On Farms				Off Farms				Total Stocks			
	Jan. 1	Apr. 1	June 1	Oct. 1[2]	Jan. 1	Apr. 1	June 1	Oct. 1[2]	Jan. 1	Apr. 1	June 1	Oct. 1[2]
1977	3,345	2,134	1,578	446	1,544	1,159	787	438	4,890	3,293	2,365	884
1978	3,824	2,517	1,849	659	1,679	1,360	989	445	5,503	3,877	2,837	1,104
1979	4,638	3,178	2,318	794	1,681	1,322	969	509	6,319	4,500	3,287	1,304
1980	5,036	3,437	2,552	920	1,844	1,416	1,093	697	6,880	4,854	3,644	1,617
1981	4,139	2,640	1,817	490	1,718	1,346	956	544	5,857	3,986	2,773	1,034
1982	4,986	3,592	2,734	1,243	1,934	1,506	1,146	931	6,921	5,098	3,880	2,174
1983	5,936	4,242	3,094	1,510	2,269	1,956	1,830	1,610	8,205	6,198	4,924	3,120
1984	3,080	1,934	1,213	348	1,833	1,318	932	375	4,913	3,251	2,145	723
1985[1]	4,304	2,834	2,008	679	2,352	1,132	828	702	5,864	3,966	2,836	1,381
1986[1]	5,525								7,877			

[1] Preliminary. [2] Old crop only. *Source: Crop Reporting Board, U.S.D.A.*

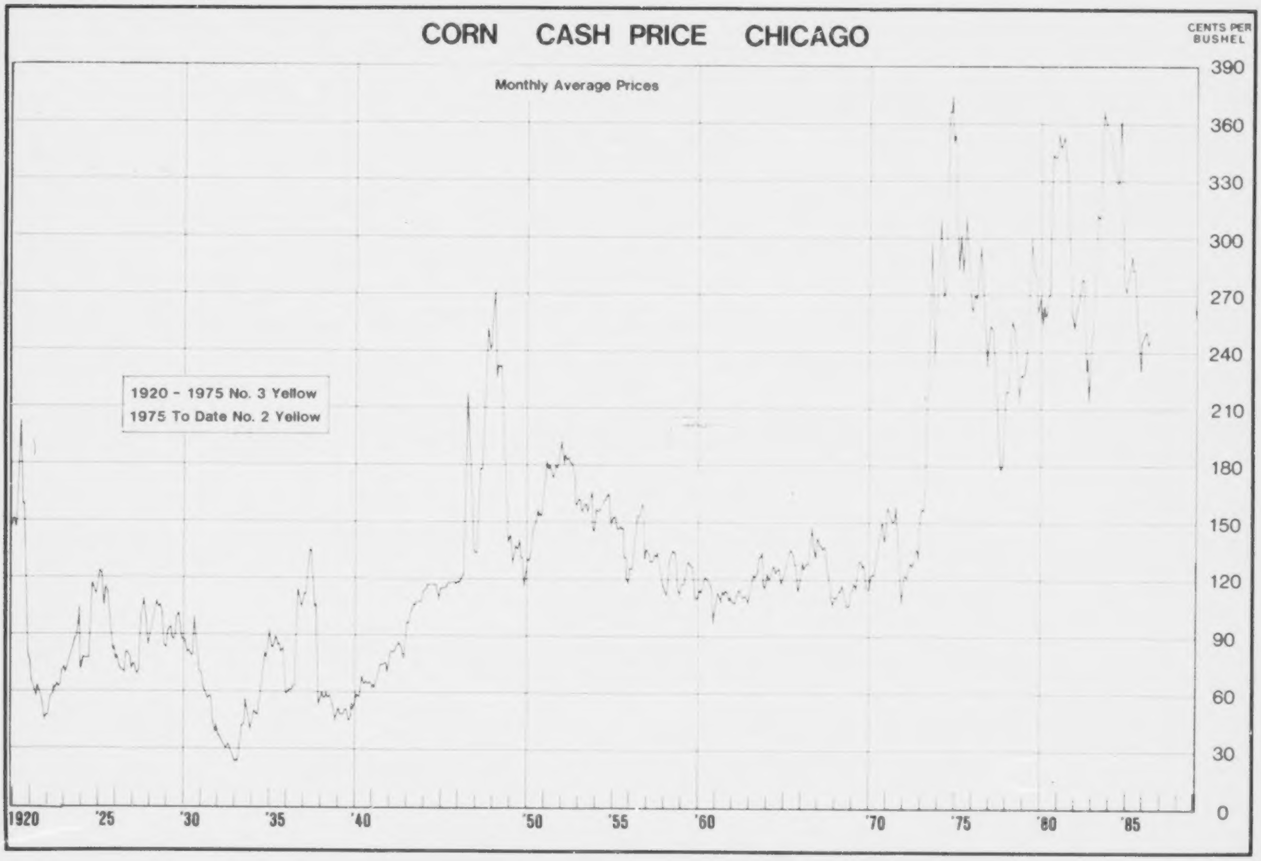
T.156

Distribution of Corn in the United States in Millions of Bushels

Year Beg. Oct.	Wet-Milled Products					Dry-Milled Products			Total Shipments	Seed	Livestock Feed[3]	Exports (Incl. Grain Equiv. of Pdt's.)	Total Utilization	Domestic Disappearance
				Alcohol		Alcohol								
	HFCS	Glucose & Dextrose	Starch	Fuel	Beverage[2]	Fuel	Beverage	Alkaline Cooked Pdt's.						
1979–0	140	175	130	10	20	0	20	160	655	20.0	4,508	2,433	7,616	5,183
1980–1	165	185	125	20	20	15	20	165	715	20.2	4,133	2,355	7,223	4,868
1981–2	190	195	135	55	30	25	10	163	793	19.4	4,202	1,967	6,980	5,013
1982–3	215	185	135	100	30	40	10	168	883	14.5	4,522	1,870	7,290	5,420
1983–4	255	190	145	120	30	40	10	164	954	18.9	3,736	1,865	6,574	4,709
1984–5[1]	310	190	145	120	30	80	10	161	1,046	19.0	4,117	1,838	7,020	5,182
1985–6[4]	330	190	150	140	30	100	10	160	1,110	20.0	4,100	1,625	6,845	5,200

[1] Preliminary. [2] Also includes nonfuel industrial alcohol. [3] Feed & waste (residual, mostly feed). [4] Forecast. *Source: Commodity Economics Division, U.S.D.A.*

T.155



Average Cash Price of Corn, No. 2 Yellow (15 Days) at Chicago In Cents Per Bushel

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average[1]
1976–7	249	233	244	253	254	252	250	241	227	205	178	180	230
1977–8	184	214	219	219	221	236	251	257	251	228	217	213	226
1978–9	222	228	227	229	235	242	253	266	283	300	282	278	254
1979–0	273	259	269	254	265	260	261	270	270	308	336	344	281
1980–1	343	343	354	356	349	348	353	347	341	341	309	272	338
1981–2	261	260	252	263	263	267	269	273	272	261	236	217	258
1982–3	207	238	244	254	274	298	312	311	328	333	360	352	293
1983–4	347	351	338	330	329	352	361	361	362	345	323	295	341
1984–5[2]	281	279	272	279	279	284	290	283	283	276	260	247	276
1985–6[2]	230	245	249	251	248								

[1] Weighted average by carlot sales. [2] Preliminary. *Source: Economic Research Service, U.S.D.A.* T.161

Average Cash Price of Corn, No. 2 Yellow at Omaha In Dollars Per Bushel

Crop Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average
1979–80	2.37	2.32	2.36	2.26	2.33	2.23	2.32	2.43	2.50	2.81	2.98	3.01	2.49
1980–81	3.16	3.34	3.30	3.29	3.18	3.17	3.24	3.24	3.19	3.15	2.79	2.51	3.13
1981–82	2.44	2.39	2.37	2.47	2.45	2.48	2.61	2.65	2.65	2.54	2.23	2.23	2.46
1982–83	2.12	2.35	2.37	2.42	2.62	2.82	3.09	3.10	3.11	3.18	3.39	3.32	2.82
1983–84	3.23	3.24	3.17	3.11	3.03	3.25	3.33	3.35	3.37	3.22	3.11	2.94	3.20
1984–85	2.71	2.61	2.55	2.60	2.61	2.68	2.73	2.68	2.70	2.61	2.39	2.35	2.60
1985–86	2.26	2.28	2.36	2.33	2.31								

Source: Economic Research Service, U.S.D.A. T.161a

Weekly Outstanding Export Sales & Accumulated Exports—U.S. Corn In Thousand Metric Tons

Marketing Year 1985/86 Week Ending	1985/86		1984/85		1983/84		1982/83	
	Outst. Sales	Accum. Exports	Outst. Sales	Accum. Exports	Outst. Sales	Accum. Exports	Outst. Sales	Accum. Exports
Oct. 3	9,449	202	16,489	276	17173.7	376.1	112017	763.0
10	9,439	746	16,937	913	16928.3	1285.6	10914.3	1680.2
17	9,122	1,631	17,121	1,708	16780.9	2317.5	10608.7	2506.3
24	8,992	2,389	16,581	2,941	16761.6	3534.9	10500.5	3473.2
31	9,950	3,110	16,106	4,195	15754.6	4934.8	9934.2	4557.0
Nov. 7	9,618	4,350	15,386	5,384	15158.0	6500.5	10115.0	5777.6
14	9,579	5,428	14,357	6,958	15263.0	7882.3	10635.0	6953.6
21	8,864	6,831	13,627	8,262	14401.5	8931.4	10474.7	7941.5
28	8,602	8,229	12,765	10,084	15186.9	9945.6	9889.2	8941.2
Dec. 5	8,458	9,352	12,058	11,321	14608.1	11410.4	9712.7	10047.6
12	7,992	10,523	11,252	12,573	14080.4	12377.8	10306.1	10878.6
19	8,806	11,652	9,923	14,018	13604.7	13536.0	10173.0	11910.6
26	8,389	12,203	9,113	15,154	13046.3	14383.9	10311.6	12744.6
Jan. 2	8,116	12,852	9,357	16,262	12624.6	15161.5	10169.1	13529.6
9	7,306	14,109	10,002	17,923	12258.1	16321.7	10241.4	14826.5
16	6,765	15,079	9,512	18,839	11905.0	17246.9	10952.1	15606.6
23	6,759	15,964	8,726	19,945	11407.2	18179.2	10926.4	16783.4
30	6,313	16,887	7,712	21,010	11131.6	19103.9	11118.9	17798.8
Feb. 6	5,658	17,944	8,966	21,786	10868.6	19925.9	10814.1	18996.4
13	5,255	18,693	8,529	22,731	10954.9	20769.6	10770.3	19981.7
20	4,878	19,491	7,850	23,683	10533.7	21820.4	10713.1	21143.1
27	4,178	20,410	7,778	24,955	10776.3	22952.4	11035.8	22226.1
Mar. 6	3,790	21,027	7,537	25,905	11560.6	23607.3	11137.6	23253.8
13	3,507	21,682	7,877	26,876	11500.4	24679.7	11013.7	24332.6
20	3,073	22,071	8,343	27,856	11299.5	25684.5	11100.9	25396.4
27	2,714	22,594	8,322	28,854	10914.8	26853.5	11477.4	26056.6
Apr. 3	2,465	23,123	8,135	30,046	10711.3	27879.8	11079.9	26865.5
10	2,334	23,534	7,897	30,946	10378.5	28768.2	11223.6	28088.8
17	2,301	23,771	6,743	31,992	9977.3	29725.0	11185.6	28928.7
24	2,353	24,016	6,616	32,881	9477.5	30741.4	11013.6	29583.8
May 1			6,010	33,833	9207.3	31788.3	10867.3	30462.4
8			5,586	34,625	8799.9	32514.2	11021.4	31324.8
15			5,096	35,471	8171.6	33606.4	10921.8	32336.0
22			4,879	36,203	7814.8	34609.3	10856.5	33463.6
29			4,765	36,978	7734.0	35288.5	10573.8	34139.4
June 5			4,960	37,529	7798.0	35959.4	10048.2	35130.5
12			5,210	37,986	7392.4	36622.3	9923.0	36123.0
19			5,089	38,499	6915.6	37267.2	9803.4	36976.4
26			4,762	38,994	6501.4	38193.2	9032.7	37698.8
July 3			4,655	39,696	6151.2	38795.9	8679.9	38478.8
10			4,377	40,187	6393.6	39345.8	8282.9	39257.8
17			4,317	40,799	6266.2	39921.0	8015.5	39982.7
24			4,281	44,221	6406.5	40623.1	7689.7	40710.5
31			4,233	44,665	6400.4	41217.4	7438.1	41302.8
Aug. 7			4,055	42,171	5834.9	42212.3	7296.8	41887.0
14			3,433	42,987	5614.7	42921.1	6679.1	42542.3
21			3,535	43,503	4987.1	43581.9	5649.8	43528.5
28			3,016	43,901	4377.8	44489.0	4845.1	44365.7
Sept. 4			2,976	44,136	3775.2	45083.8	4154.8	45215.5
11			2,447	44,793	3003.7	45511.6	3247.2	46263.3
18			1,977	45,338	2497.4	46011.4	2451.1	2214.1
25			1,625	45,688	1926.9	46599.2	1862.5	47482.6
Oct. 2								
9								
16								
23								
30								

Source: U.S.D.A. Export Sales Report (U.S.D.A.)

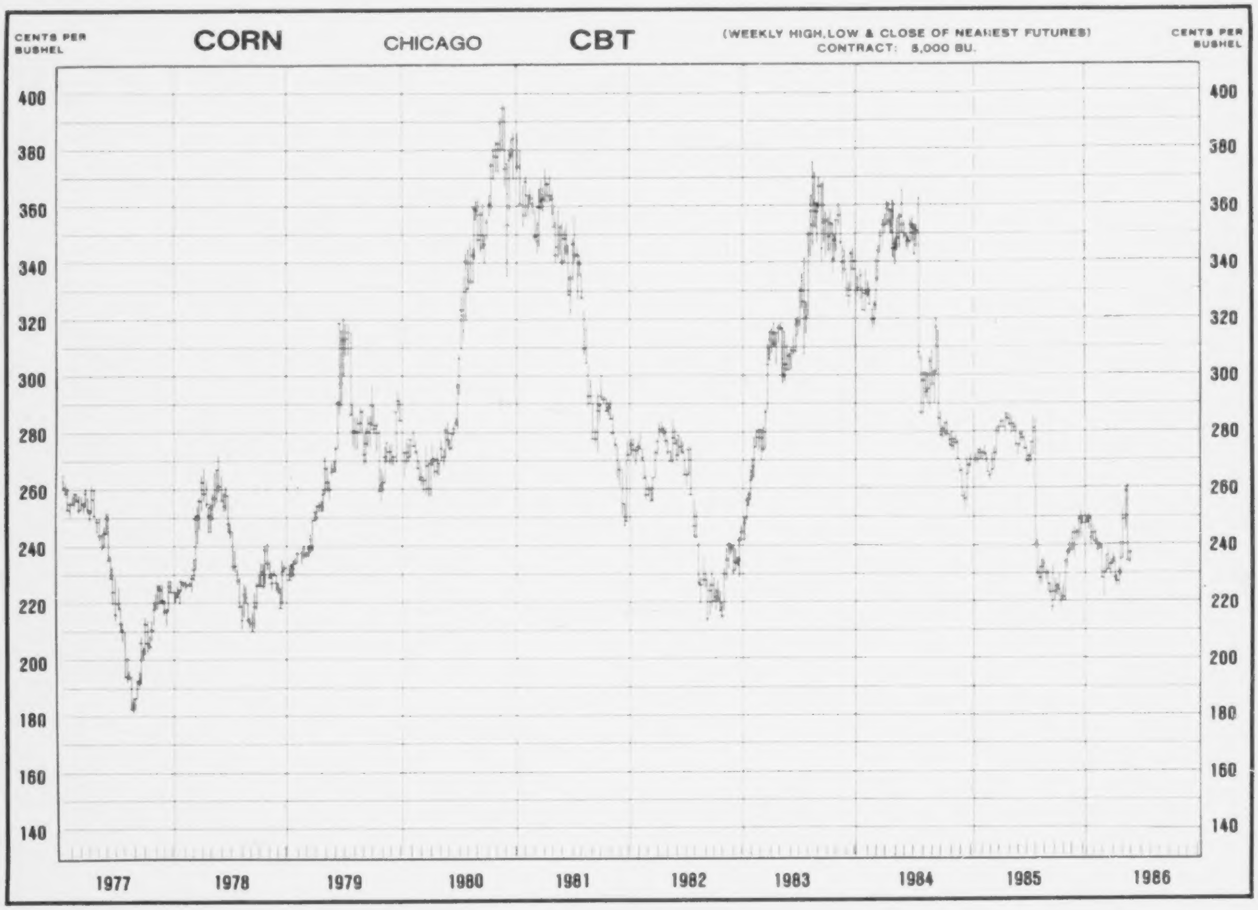
T.161b

CORN

U.S. Exports[2] of Corn (Including Seed), By Country of Destination In Thousands of Metric Tons

Yr. Begin. October	USSR	China	Canada	Egypt	W. Germany	Greece	Israel	Italy	Japan	Mexico	Netherlands	Korea	United Spain	Total All Kingdom	Exports
1978-9			364	617	1,435	1,186	258	1,503	8,979		2,193		1,747	1,990	53,903
1979-0	5,342		597	874	1,521	1,119	562	2,072	11,193	3,834	2,108		2,503	1,828	61,801
1980-1	4,947	725	551	1,129	1,264	718	547	1,859	12,586	3,790	1,773	2,304	2,651	1,395	59,368
1981-2	7,499	1,117	320	1,348	1,136	734	403	655	10,588	554	1,428	2,690	4,000	1,091	49,609
1982-3	3,082	2,161	250	1,516	332	221	420	89	13,179	3,987	421	3,904	2,132	755	47,105
1983-4[1]	6,283	0	166	1,303	(EC-3,927)				13,775	2,806		2,971	1,972		46,985

[1] Preliminary. [2] Exports of grain only. Does not include corn exported under the food for relief or charity program. *Source: Foreign Agricultural Service, U.S.D.A.* T.165



Volume of Trading of Corn Futures at Chicago In Millions of Bushels

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	1,734	2,281	2,739	3,302	3,751	5,705	5,806	3,999	3,135	4,522	3,794	2,592	43,359
1980	3,287	3,227	3,493	3,690	3,265	3,362	6,722	7,310	6,287	6,609	6,455	6,027	59,735
1981	4,848	4,495	5,036	5,222	3,867	4,785	5,459	5,019	3,626	3,127	3,913	3,978	53,375
1982	2,802	3,390	3,634	3,355	2,754	3,538	3,122	3,552	3,127	3,239	4,634	2,594	39,741
1983	3,638	3,114	5,355	4,440	3,943	4,511	5,627	7,431	5,882	5,180	5,734	3,518	59,623
1984	3,518	3,866	4,248	4,407	4,259	4,111	4,868	3,975	3,289	2,883	3,619	2,439	45,543
1985[1]	2,406	2,369	2,746	2,608	2,346	2,494	3,231	2,743	2,629	2,597	3,545	2,248	31,964
1986[1]	2,929	2,153	2,203	3,256									

[1] Preliminary. *Source: Chicago Board of Trade* T.164

Month End Open Interest of Corn Futures at Chicago In Millions of Bushels

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1980	838.9	799.0	789.8	787.7	766.7	721.6	1,048.8	1,382.4	1,398.0	1,587.9	1,575.5	1,315.0
1981	1,216.5	1,107.5	1,002.4	846.5	737.5	572.6	568.8	637.8	637.7	724.7	674.6	630.7
1982	708.0	625.6	650.0	610.0	594.5	552.6	581.8	596.6	594.7	663.5	712.1	657.8
1983	776.9	778.5	872.5	832.4	760.0	727.2	792.5	1,127.1	1,134.4	1,163.4	1,138.0	1,062.1
1984	1,022.3	964.0	1,034.3	901.5	776.8	717.8	704.0	712.2	730.6	738.4	657.8	649.4
1985	659.2	588.2	629.0	587.6	507.9	499.2	603.1	661.4	605.7	698.0	714.4	622.1
1986	587.2	545.1	559.5									

Source: Chicago Board of Trade T.163

High, Low & Closing Prices of May Corn Futures at Chicago In Cents per Bushel

Year of Delivery		Year Prior to Delivery Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Delivery Year Jan.	Feb.	Mar.	Apr.	May	Life of Delivery Range
1982	High	398¼	410¾	398	385¾	395½	370¾	338¼	338¼	320½	297½	287½	291	275½	283¼	277¼	410¾
	Low	385	385¼	371¼	360¾	364¼	323	310	315½	290¾	261½	277½	269¼	265¼	274	267½	265¼
	Close	397¾	390½	380¾	366	370¾	333¾	318½	318½	291	281	285½	270	274¼	276	268¾	—
1983	High	317½	322½	313½	307	294¼	281	259¼	253	258	255	278	292	315½	318¾	319¼	322½
	Low	310	313¼	303	291¾	274½	250¾	243½	236¼	242¾	242¾	251	273	282¼	304¼	297¼	236¼
	Close	316	313¼	303	292¾	276½	255¾	248	236¼	247¾	253	277	281½	312¾	317¼	311	—
1984	High	325	324½	320	301½	347	390	385½	359¾	361½	346	338¾	336	357¼	362¼	366	390
	Low	297½	312¼	296¼	286¼	285	341½	345½	337	335¾	329½	324¾	320	331	340	338½	285
	Close	317¾	316¼	297¼	289¾	342½	374½	358½	341¼	340¼	340¼	332¾	332½	353¼	344½	365¾	—
1985	High	312¾	322	321	330	328¼	302¾	301¼	295¾	292¼	285¼	280¼	281	282	286	284¾	330
	Low	300	310	304¾	309¾	289¾	291¼	286½	285½	283¼	272¾	274	269¾	270	280¼	279	269¾
	Close	309¼	314	316½	326¾	297¼	295½	286½	287½	284½	276	278½	271¼	281¼	283¼	283	—
1986	High	282¾	284	279½	274½	264¾	242	243½	247¾	250¾	256½	255¼	245¾	235¾			
	Low	274¾	275½	264½	262½	238½	231	231½	238¼	241	242½	243	226¾	222½			
	Close	282¾	279	267½	263¾	240½	235	240¾	246½	243½	252¼	244¾	227	234¾			
1987	High	225½															
	Low	214															
	Close	219															

Source: Chicago Board of Trade T.162

Corn Price Support Data in the United States

Year Begin. Oct. 1	National Avg. Loan Rate	Grain Reserve Loan Rate	Target Price	Placed Under Loan	Redemptions	Resealed	Total Deliveries[2]	Stocks at Close of Mkt. Year (Sept. 30) CCC Inventory	Under CCC Loan	Farmer Owned Reserve	"Free" Stocks	Total Stocks	CCC Inventory — As of Dec. 31 — CCC Owned	Under CCC Loan
	¢ Bush.			Millions of Bushels										
1979-0	210	—	220	557	527		—	256.3	82.6	636.4	614	1,617	99.7	801.0
1980-1	225	240	235	840	742		42	237.8	100.8	185.4[4]	424	1,034	256.4	966.0
1981-2[1]	240	255	240	1,977	392		45	302.4			336	2,174	248	1,234
1982-3[1]	255	290	270	1,585	0		0	1,150			440	3,120	429	2,400
1983-4[1]	265		286									723		
1984-5[1]	255		303									1,381		
1985-6[1]	255		303									3,403		

[1] Preliminary. [2] Includes "delivered to CCC" from original program and deliveries from reseal program and over-deliveries as determined by weight of farm-stored grain when delivered to CCC. [3] Less than 500,000 bushels. [4] Called Reserve Corn under extended loan. *Source: Agricultural Stabilization and Conservation Service, U.S.D.A.* T.159

Corn Under Price Support through the End of the Month (Cumulative Total from Current Season's Crop) In Millions of Bushels

Crop Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
1980-1	2.3	44.6	145.0	386.0	746.7	795.2	816.0	830.6	836.0	838.1				
1981-2	13.5	81.9	418.7	1,049	1,642	1,826	1,903	1,940	1,951	1,962				
1982-3	15.5	76.2	334.5	870.2	1,369	1,505	1,551	1,561	1,567	1,572				
1983-4	.4	14.6	58.1	98.3	138.0	149.1	158.3	160.2	161.1	161.3				
1984-5	2.3	47.2	278.5	631.5	969.6	1,028	1,055	1,063	1,068	1070				
1985-6	56.9	369.8	1,069	2016	2,055	2,828								

Source: U.S. Department of Agriculture T.158

CORN OIL

Supply & Distribution of Corn Oil In Millions of Pounds

	Supply				Disappearance									
					Food Uses					Non-Food Uses				
Year Beginning Oct.	Production	Imports	Stocks Oct. 1	Total Supply	Shortening	Margarine	Salad & Cooking Oil	Other	Total Food Uses	Foots & Loss	Other	Total Non-Food Uses	Total Domestic Disappearance	Total Exports & Shipments
1976-7	669	10	41	720	3	235	303	2	543	37	1	38	605	59
1977-8	695	3	46	744	4	243	288	—	510	45	1	46	580	88
1978-9	737	—	73	810		223	314						619	121
1979-0	791	—	70	861		222	335						654	141
1980-1	864	—	66	930		217	383		625				673	181
1981-2	872	—	76	948		217	357		593				689	206
1982-3[1]	983	—	53	1,036		217	395		637				723	224
1983-4[2]	1,053	—	89	1,142		196	458		693				762	310
1984-5[2]	1,195	—	70	1,265		206	511		774				931	261
1985-6[2]	1,333	—	73	1,406									979	341

[1] Preliminary. [2] Forecast. *Source: Economic Research Service, U.S.D.A.* T. 166

Crude Corn Oil Production in the United States In Millions of Pounds

Crop Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
1976-7	62.0	50.4	51.3	48.1	49.0	59.2	55.6	58.1	57.9	64.0	59.3	53.7	668.6
1977-8	58.9	58.0	50.1	54.9	51.6	58.7	57.1	68.0	64.7	60.5	59.7	63.8	695.5
1978-9	65.4	59.8	55.8	47.6	54.9	69.4	67.4	69.7	60.6	61.5	63.9	60.3	736.3
1979-0	61.8	63.3	63.0	62.3	60.0	70.7	64.3	68.3	65.1	66.2	69.9	76.2	791.1
1980-1	80.6	68.0	59.0	65.8	63.6	76.2	69.6	74.3	76.1	76.2	76.4	77.8	863.6
1981-2	81.4	69.2	66.5	56.7	64.9	76.4	71.6	77.1	73.9	76.5	79.3	78.0	871.5
1982-3	79.2	72.6	78.4	78.9	73.1	88.2	79.8	85.9	83.6	82.7	92.0	88.2	982.6
1983-4[1]	87.0	85.7	83.2	92.1	87.5	91.1	88.5	94.5	84.4	90.6	86.4	82.0	1,053
1984-5[1]	88.8	75.5	89.6	87.7	84.2	107.3	107.0	110.1	107.7	130.1	101.9	104.0	1,194
1985-6[1]	114.2	101.5	92.1	72.8	98.8								

[1] Preliminary. *Source: Economic Research Service, U.S.D.A.* T. 167

Corn Oil Spot Price, Crude, F.O.B. Decatur (Tank Cars) In Cents Per Pound

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average
1976-7	27.1	27.5	26.0	28.0	36.0	36.0	34.5	35.5	31.0	27.5	23.5	23.2	29.7
1977-8	26.5	31.5	35.0	40.0	44.0	43.0	36.5	35.3	33.0	33.3	31.5	35.5	35.4
1978-9	34.0	35.0	31.0	35.0	34.0	33.3	32.1	33.0	30.0	31.0	32.3	32.5	32.8
1979-0	32.8	29.9	33.3	27.5	29.0	26.0	20.0	23.0	22.0	27.3	29.8	28.0	27.4
1980-1	28.0	27.5	28.0	26.3	25.0	23.8	25.5	24.4	24.5	25.8	22.3	21.5	25.2
1981-2	20.0	21.0	25.0	24.0	29.0	25.0	25.0	24.0	23.5	23.0	20.5	21.0	23.4
1982-3[1]	23.0	23.8	24.0	22.5	24.5	21.5	21.0	22.5	22.0	20.0	25.0	36.0	23.8
1983-4[1]	27.5	28.0	25.8	27.0	25.3	26.5	30.0	38.8	35.7	26.0	23.8	29.0	26.6
1984-5[1]	30.5	34.2	30.7	28.7	30.0	31.0	32.5	31.5	30.8	N.A.	N.A.	N.A.	31.1
1985-6[1]	20.9	20.2	20.1										

[1] Preliminary. *Source: Economic Research Service, U.S.D.A.* T. 168

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Cotton

World cotton production was expected by USDA in April 1986 to fall 11 percent to 77.50 million bales in 1985/86, mainly because of a substantial decline in Chinese output. The Chinese downturn, together with lower output in India, Brazil, and Turkey, more than offset increases in the U.S., the USSR, Pakistan and Egypt. In China, reduced incentives to producers and adverse weather in several regions resulted in a 33 percent decline in output after the previous year's bumper crop. The Indian crop was also reduced because of unfavorable climatic conditions in many areas. However, Pakistan's crop reached a record as excellent weather allowed higher yields.

Global mill use of cotton was forecast to expand about 5 percent to 72.8 million bales. Mill use by China, the largest consumer, was slated to rise 2 million bales (or 13 percent) to 17.50 million bales. Use there was boosted by strong domestic and export demand for textiles. Mill use by Asian raw cotton importers—South Korea, Japan, and Taiwan—was forecast to decline because of competition from Chinese and Pakistani textiles.

USDA expected world cotton exports in 1985/86 to shrink about 5 percent from the year before to 19.16 million bales. While many exporters—Pakistan, India, China, Australia, and Brazil—expanded shipments during the year, U.S. exports were expected to fall 68 percent to 2 million bales. During the year, China increased its penetration of Asian markets, where it has transportation advantages.

Global ending stocks were placed at 47 million bales, about 10 percent above the year-before level. A 5.5 million bale gain in U.S. stocks largely accounted for the increase. The rising world surplus pressured cotton prices in 1985, as reflected in a nearly 40 percent decline in the Outlook "A" Index from 1984.

The 1985/86 U.S. cotton crop was 13.5 million bales, 4 percent above the previous season and the largest since 1981/82. Total planted area was 10.71 million acres, of which 10.31 million were harvested. Average yield per harvested acre was 630 pounds, 5 percent greater than the record the previous year.

Domestic mill use in 1985/86 was slated to expand 13 percent to 6.2 million bales. Strong demand for all-cotton yarn, denim, and household products helped mill use. The share of cotton in total U.S. fiber consumption rose, with an increasing consumer preference for natural fibers, and as cotton prices declined more than manmade fiber prices.

U.S. cotton exports are forecast to fall from 6.2 million bales in 1984/85 to only 2 million in 1985/86, the lowest level in more than 30 years. The drop was the result of non-competitive U.S. prices and increased availabilities in some exporting countries. U.S. shipments of upland cotton to Japan and South Korea were sharply lower during the season.

U.S. 1985/86 ending stocks were forecast to more than double from the previous year to 9.6 million bales, mostly the result of sluggish export business.

The government loan rate for 1985-crop cotton was 57.3 cents per pound and the target price was 81 cents. Entries of cotton in the loan program were substantial; this removed supplies from the market and provided some support for prices. Yet, prices of nearby cotton futures in 1985 were generally below levels that prevailed in the previous two years. Nearby futures peaked at 70 cents per pound in early April and registered a low of 57.5 cents in August.

Government Support Program

The loan rate for 1986-crop cotton was reduced 4 percent to 55 cents per pound, and a loan repayment rate of 44 cents was authorized. These changes were implemented to make U.S. cotton prices more competitive internationally. The target price in 1986 was left unchanged at 81 cents per pound. Additionally, the 1986 upland cotton program has an inventory protection provision. Under the provision, holders of free stocks of cotton on August 1, 1986 will receive payments in the form of negotiable certificates. The payment will equal the difference between the 1985/86 loan rate of 57.3 cents per pound plus carrying charges and the world price of cotton on August 1.

A 25-percent acreage reduction is required of producers participating in the 1986 cotton program. This compares with the 30-percent reduction that was in effect in 1985.

Futures Market

Cotton futures are traded on the New York Cotton Exchange. The basis of the contract is Strict Low Middling 1-1/16″ U.S. grown white cotton.

Supply and Distribution of All Cotton in the United States In Thousands of (480-Lb. Net Weight) Bales

Crop Year Beginning Aug. 1	Supply												Distribution		
	Carryover, Aug. 1						Ginnings								
	Privately Owned														
	At Mills	In Public Storage	Elsewhere	Total	CCC Held	Total Stocks	Current Crop[2] Less Ginnings	New Crop[3]	Total[4]	Imports	City Crop	Total	Mill Consumption	Exports	Total
1978–9	1,120	3,806	400	4,057	1,232	5,326	10,405	72	10,477	4	0	15,807	6,352	6,180	12,532
1979–0	928	2,604	250	3,145	635	3,782	14,190	200	14,390	5	0	18,177	6,506	9,229	15,735
1980–1	955	1,822	250	2,485	542	3,027	10,627	44	10,671	28	1	13,897	5,891	5,926	11,817
1981–2	883	1,688	25	1,943	652	2,595	15,106	40	15,146	26	0	17,767	5,043	6,567	11,831
1982–3	830	5,269	300	2,640	3,759	6,399	11,486	2	11,488	3	0	17,907	5,259	5,207	10,720
1983–4	756	6,656	150	2,795	4,766	7,561	7,502	163	7,665	9	0	15,235	5,926	6,786	12,712
1984–5[1]	795	1,761	350	2,316	590	2,906	12,382	70	12,452	21	0	15,379	5,545	6,203	11,748
1985–6[5]	733	2,930	350	2,279	1,809	4,088							5,747	3,500	9,247

[1] Preliminary. [2] Less ginnings prior to Aug. 1. [3] Ginnings prior to Aug. 1 end of season. [4] Includes inseason ginnings. [5] Estimate. *Source: Economic Research Service, U.S.D.A.* T.170

COTTON

Cotton World Supply and Demand In Thousands of 480-lb. Bales

	Beginning Stocks				Production				Consumption				Exports			
Yr. Begin. Aug. 1	US	USSR	PR China	World Total	US	USSR	PR China	World Total	US	USSR	PR China	World Total	US	USSR	PR China	World Total
1977-8	2,928	2,800	2,800	21,564	14,389	12,470	9,400	63,911	6,509	9,000	11,000	59,717	5,484	4,160	100	19,140
1978-9	5,347	2,465	2,500	26,158	10,856	11,907	9,950	59,639	6,352	9,075	13,100	63,286	6,180	3,756	15	19,790
1979-0	3,958	1,895	1,460	21,735	14,629	12,833	10,100	65,736	6,506	9,100	14,100	66,155	9,229	3,770	12	23,244
1980-1	3,000	2,154	1,548	21,172	11,122	13,498	12,400	65,002	5,891	9,150	15,100	65,969	5,926	4,070	6	19,711
1981-2	2,668	2,585	2,392	21,210	15,646	13,277	13,600	71,180	5,264	9,150	16,200	66,114	6,567	4,295	0	20,228
1982-3	6,632	2,527	1,892	25,197	11,963	11,932	16,500	68,057	5,513	9,200	16,400	68,215	5,207	3,890	75	19,441
1983-4	7,937	1,845	3,017	25,021	7,771	12,065	21,300	67,669	5,928	9,400	16,000	69,024	6,786	3,202	800	19,235
1984-5[1]	2,775	2,091	7,767	24,637	12,982	11,876	28,700	87,516	5,540	9,500	15,500	69,406	6,215	3,200	1,200	20,226
1985-6[2]	4,102	2,067	19,767	42,613	13,540	12,100	19,100	77,499	6,205	9,600	17,500	72,806	2,000	3,100	1,700	19,162

[1] Preliminary. [2] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T.168a

World Production of Cotton In Thousands of Bales[3]

Year Begin. Aug. 1	Argentina	Brazil	PR. China	Egypt	India	Iran	Mexico	Pakistan	Israel	Sudan	Colombia	Turkey	United States	USSR	World Total
1976-7	737	2,500	9,958	1,820	4,929	717	1,041	1,998	246	732	682	2,181	10,581	12,011	57,215
1977-8	1,011	2,116	9,411	1,832	5,656	817	1,620	2,640	294	911	642	2,639	14,389	12,468	63,836
1978-9	797	2,519	9,958	2,014	6,194	607	1,563	2,174	363	637	373	2,191	10,856	11,830	59,482
1979-0	667	2,629	10,158	2,221	6,274	458	1,509	3,343	346	523	573	2,191	14,629	12,410	64,938
1980-1	384	2,825	12,433	2,428	6,090	290	1,620	3,282	359	441	531	2,290	11,122	13,165	64,484
1981-2	696	2,939	13,632	2,291	6,473	338	1,440	3,438	420	706	406	2,244	15,641	13,012	70,542
1982-3	511	2,985	16,525	2,115	6,320	427	840	3,775	399	915	153	2,241	11,963	12,193	67,743
1983-4[1]	827	2,554	21,300	1,839	5,878	409	1,038	2,149	425	1,003	352	2,398	7,771	12,282	67,479
1984-5[1]	786	4,372	28,700	1,834	7,925	488	1,248	4,628	402	902	617	2,692	12,981	11,719	87,862
1985-6[2]	643	2,781	19,060	1,985	7,418	434	950	5,500	448	850	489	2,384	13,534	11,956	77,112

[1] Preliminary. [2] Estimate. [3] U.S. is in running bales (500 lbs.); all others are 478 pound net weight bales. *Source: International Cotton Advisory Committee* T.169

World Consumption[3] of All Cottons in Specified Countries In Thousands of Bales (478 Pounds Net[2])

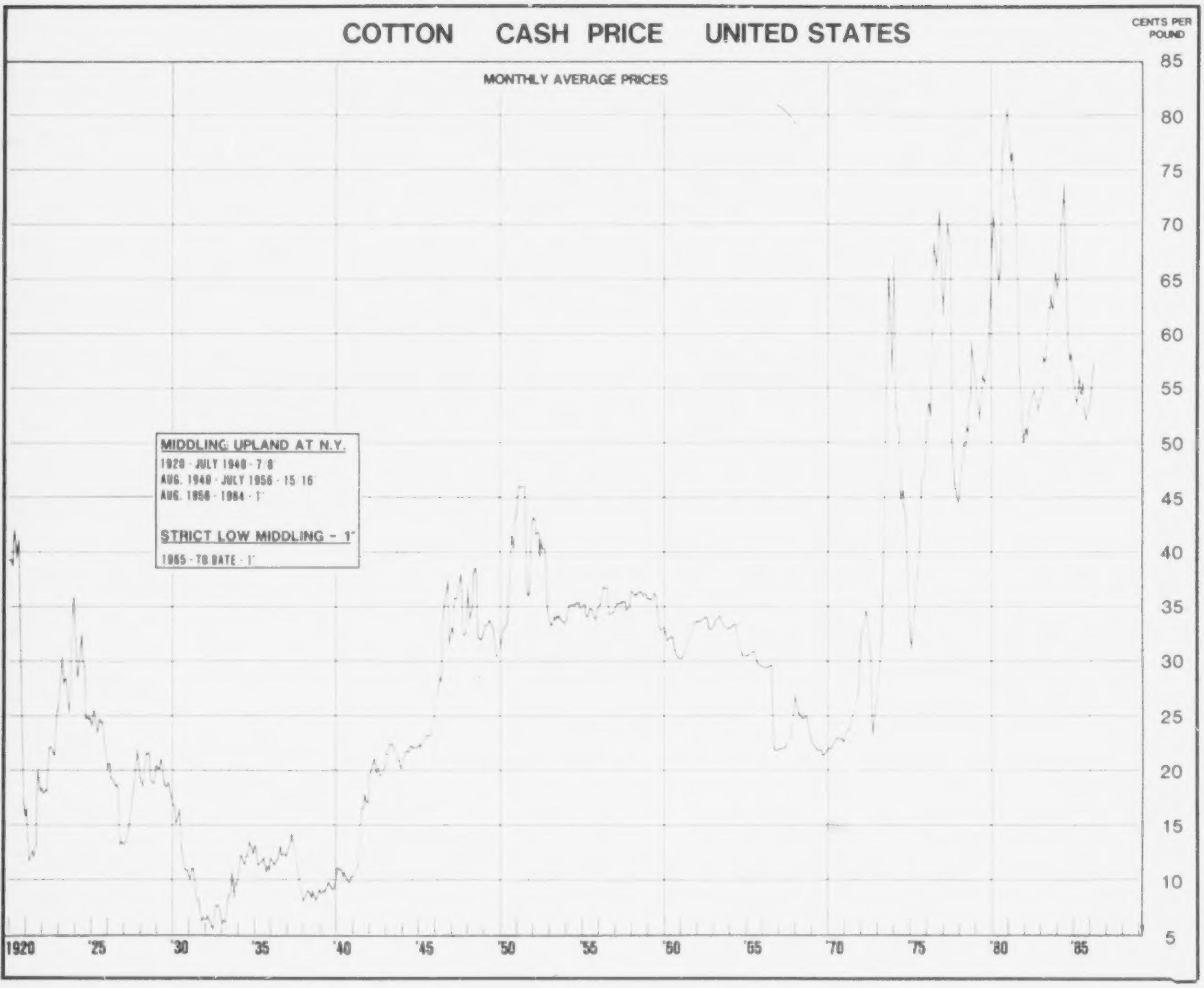
Yr. Beg. Aug. 1	Argentina	Brazil	PR. China	Egypt	Poland	France	W. Germany	India	Italy	Japan	Mexico	Pakistan	Un. Kingdom	United States	USSR	World Total
1976-7	538	2,091	11,353	1,195	697	957	962	5,477	919	3,137	757	1,793	489	6,674	8,698	60,594
1977-8	478	2,241	12,050	1,295	697	846	807	5,298	837	2,988	737	1,892	413	6,509	8,834	60,825
1978-9	503	2,440	12,747	1,319	727	822	777	5,626	975	3,286	757	1,942	447	6,352	8,888	63,105
1979-0	468	2,589	13,564	1,295	782	846	789	5,925	1,047	3,386	757	1,972	400	6,506	8,916	65,315
1980-1	382	2,526	15,078	1,498	752	767	792	6,313	971	3,285	759	2,061	220	5,891	8,971	66,102
1981-2	359	2,619	16,094	1,340	697	743	795	5,789	994	3,423	708	2,351	207	5,264	8,984	65,843
1982-3	423	2,639	16,405	1,199	699	765	928	6,233	1,000	3,275	630	2,549	208	5,513	9,039	67,844
1983-4	515	2,572	16,300	1,196	638	745	989	6,614	1,125	3,298	528	2,208	206	5,926	9,100	69,169
1984-5[1]	464	2,582	16,000	1,341	712	728	1,000	6,960	1,203	3,187	550	2,500	202	5,540	9,150	69,697
1985-6[4]	459	2,664	17,700	1,441	726	728	1,010	7,390	1,153	2,962	575	2,600	208	6,100	9,200	72,948

[1] Preliminary. [2] Except for the U.S. which are in running bales. [3] Includes estimates for hand spinning in some countries. Excludes cotton burned or otherwise destroyed. [4] Estimate. *Source: International Cotton Advisory Committee* T.173

Consumption of American and Foreign Cotton in the United States In Thousands of Bales[1]

Year	Aug.	Sept.	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Total
1977-8	494	606	512	505	562	493	501	620	484	483	575	383	6,218
1978-9	459	569	482	595	435	603	471	506	584	484	489	503	6,180
1979-0	472	482	630	482	436	604	507	513	622	496	478	487	6,209
1980-1	443	456	597	458	475	435	446	539	435	441	531	385	5,641
1981-2	429	517	448	403	400	378	398	493	410	392	460	317	5,038
1982-3	386	474	416	391	425	404	430	549	431	441	543	369	5,259
1983-4	453	560	459	446	468	469	448	548	430	442	503	354	5,580
1984-5[2]	416	494	415	377	407	399	418	519	419	439	525	369	5,197
1985-6[2]	458	560	562	477	480								

[1] American cotton, running bales; foreign cotton, equivalent 500 lb. bales. [2] Preliminary. *Source: Bureau of the Census* T.188



Average Spot Cotton Prices,[2] C.I.F. Northern Europe In Cents Per Pound (Equivalent U.S. ¢/Lb.)

Crop Year (Aug.-July)	M 1''		SM $1^1/_{16}$–$^3/_{32}$''										SM 1⅛" U.S. Calif.	Australian M-1$^3/_{32}$
	U.S. Orleans/Texas	Pakistan N.T. Sind	Guatemala SM	U.S. Memphis Terr. SM	Greece SM	Egypt Giza $^{81}/_{69}$ FG	Mexico SM	Nicaragua SM	Syria SM	USSR Pervyi $^{31}/_{32}$ MM	Tanzania A.A. No. ½	Turkey Izmir (12 MIR)		
1978–79	63.23		75.23	72.52	83.09		72.94	70.21	72.08	72.55		73.46	77.99	
1979–80	75.36	75.41	83.63	87.49	84.00	136.37	85.86	86.13	83.50	85.89	92.33	90.25	90.69	
1980–81	89.14	84.94	93.47	101.23	83.80	137.66	94.91	92.46	101.00	92.80	103.25	96.65	101.85	
1981–82	66.76	65.65	72.87	76.30	81.00	115.73	75.28	72.17	79.82	73.02	88.08	77.55	79.79	
1982–83	68.11	65.59	76.14	77.94	85.74	110.07	76.39	75.70	81.10	71.00	87.50	83.44	84.99	
1983–84	78.41	75.20	86.81	87.09	94.37	134.07	87.42	86.02	90.00	91.15	95.14	92.74	94.90	90.83
1984–85[1]	65.92	55.96	66.96	73.47	74.32	136.06	70.00		75.15	—	77.18	74.18	75.88	67.62
Dec. '85[1]	63.58	39.33	48.75	67.67	49.67	110.95	52.42	48.33	47.00	47.00	62.00	56.33	68.67	53.67
Jan. '86[2]	63.50	41.10	54.00	69.15	50.60	110.95	54.25	52.95	47.00	51.30	62.00	57.25	65.55	54.70
Feb. '86[2]	57.63	41.23	56.50	62.38	54.88	110.95	56.75	55.50		54.56	59.25	57.63	58.44	55.31
Mar. '86														

[1] Preliminary. [2] Generally for prompt shipment. *Source: International Cotton Advisory Committee* T.172

COTTON

Average Price of Strict Low Middling, $1\frac{1}{16}''$, Cotton at Designated U.S. Markets ¢/Lb. (Net Weight)

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Average
1978–9	59.78	60.04	64.08	65.65	64.39	61.48	60.59	58.70	58.05	60.90	63.38	61.87	61.58
1979–0	62.08	62.15	62.88	63.40	66.20	72.40	80.66	79.24	79.05	78.27	72.41	79.01	71.48
1980–1	85.60	87.51	85.78	87.05	87.23	85.11	83.30	81.52	81.15	78.46	78.12	75.08	82.99
1981–2	66.44	60.81	60.63	57.47	55.11	57.82	57.26	59.73	62.03	62.44	61.10	64.96	60.48
1982–3	60.38	58.98	58.58	58.20	59.65	60.16	61.72	66.05	65.33	66.88	70.74	70.27	63.08
1983–4	72.93	71.68	72.01	73.41	73.04	70.55	71.38	74.89	75.64	79.44	75.00	67.35	55.00
1984–5	63.01	61.16	61.15	60.43	60.45	59.96	58.65	60.18	61.71	60.11	59.76	59.55	60.51
1985–6	57.87	56.38	56.14	56.03	56.25	58.39	59.81	61.75					

Note: Grade 41. *Source: Department of Agriculture* T.190

Average Spot Cotton, $1\frac{3}{32}''$, Price (SLM) at Designated U.S. Markets In Cents Per Pound (Net Weight)

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Average	$1\frac{1}{32}''$	$1''$
1978–9	60.01	60.27	64.31	65.94	64.68	61.77	60.88	59.03	58.44	61.30	63.79	62.26	61.89	59.92	55.24
1979–0	62.47	62.54	63.28	63.81	66.58	72.78	81.05	79.63	79.44	78.66	72.80	79.40	71.87	69.53	63.39
1980–1	86.00	87.91	86.18	87.45	87.63	85.57	83.70	81.92	81.55	78.86	78.52	75.48	83.39	80.95	75.70
1981–2	66.84	61.22	61.08	57.91	55.52	58.24	57.70	60.12	62.41	62.82	61.48	N.A.	60.89	58.28	54.13
1982–3	60.76	59.36	58.97	58.57	60.02	60.53	62.09	66.43	65.72	67.31	71.20	70.73	63.47	61.17	56.41
1983–4	70.52	69.29	69.49	70.82	70.44	68.03	68.98	72.56	73.37	77.18	72.74	65.11	73.55	70.71	66.32
1984–5	63.45	61.60	60.71	59.99	60.01	59.52	58.21	59.74	61.27	59.67	59.32	59.99	60.29	58.30	55.98
1985–6	57.40	55.89	55.66	55.55	55.77	57.92	59.34	61.28							

Source: Agricultural Marketing Service, U.S.D.A. T.191

Average Spot Prices of U.S. Cotton,[1] $1\frac{1}{16}$ inches—(SLM) at Designated Markets In Cents Per Pound

Yr. Begin. Aug. 1	Atlanta	Augusta	Charleston	Dallas	Fresno	Galveston	Greenville	Greenwood	Houston	Little Rock	Lubbock	Memphis	Montgomery	Phoenix	Average
1978–9	—	62.50	—	58.33	67.66	—	62.09	61.84	59.45	—	58.27	61.68	61.92	61.98	61.58
1979–0	—	73.92	—	66.91	73.76	—	73.24	72.73	—	—	66.43	72.55	72.57	71.98	71.48
1980–1	—	85.21	—	80.65	82.80	—	84.54	84.30	—	—	79.66	83.81	84.28	81.70	82.99
1981–2	—	61.87	—	58.32	61.02	—	61.57	61.34	—	—	57.96	61.00	61.34	59.93	60.48
1982–3	—	—	—	61.62	64.49	—	63.50	63.35	—	—	60.84	63.33	63.50	63.17	63.08
1983–4	—	—	—	70.79	77.02	—	73.28	73.14	—	—	70.35	73.25	72.93	74.13	73.11
1984–5	—	—	—	58.94	61.29	—	61.08	60.98	—	—	58.93	60.73	60.56	61.57	60.51

[1] Mixed Lots, Net Weight, uncompressed in warehouse. *Source: Agricultural Marketing Service, U.S.D.A.* T.177

Avg. Price[1] Received by Farmers for Upland Cotton in the U.S. In Cents Per Pound

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Average[1]
1978–9	57.4	56.2	59.6	61.1	59.0	57.0	55.6	53.5	54.7	56.0	58.8	61.9	58.1
1979–0	59.2	57.3	61.2	61.0	59.8	60.9	64.9	62.9	61.0	63.6	62.2	71.5	62.3
1980–1	73.7	73.9	75.3	77.6	80.9	76.6	70.8	71.9	72.7	72.5	71.2	70.4	74.4
1981–2	65.0	58.1	63.2	61.1	51.5	50.3	49.1	50.4	54.3	55.8	58.1	59.9	54.0
1982–3	52.7	56.0	60.9	61.0	57.7	57.0	57.7	62.2	60.4	63.6	62.6	67.1	59.1
1983–4[2]	64.6	62.8	63.1	67.0	66.2	62.7	65.0	70.1	67.2	72.7	68.0	65.9	66.0
1984–5[2]	67.3	65.6	64.4	62.0	56.1	52.2	49.5	56.1	57.0	57.5	60.3	60.5	57.5
1985–6[2]	56.0	55.0	56.7	56.0	53.3	53.0	55.4	55.0					

[1] Weighted average by sales. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.187

High, Low & Closing Prices of May Cotton Futures at New York In Cents per Pound

Year of Delivery		Year Prior to Delivery										Delivery Year					Life of Delivery Range
		Mar	Apr	May	June	July	Aug	Sept.	Oct	Nov.	Dec	Jan.	Feb	Mar	Apr	May	
1980	High	67.90	65.70	66.40	68.25	67.00	70.00	69.00	68.90	73.00	76.40	86.00	90.42	90.70	87.40	84.40	90.70
	Low	66.00	64.10	63.00	63.90	64.55	65.90	66.25	66.40	68.20	70.82	73.97	80.70	77.52	79.50	80.90	64.15
	Close	65.65	65.45	64.15	65.60	66.05	69.20	67.70	68.22	71.77	75.95	85.37	86.77	85.12	81.99	83.75	—
1981	High	80.60	77.60	78.42	75.00	85.70	94.50	96.87	93.50	93.12	97.67	96.50	93.70	89.80	89.20	85.20	97.67
	Low	74.50	74.30	74.92	72.80	75.50	81.65	87.00	88.20	86.70	88.40	88.35	86.00	84.75	83.75	80.65	71.00
	Close	77.00	75.05	75.00	74.80	84.80	93.92	90.40	90.20	92.08	95.60	90.90	90.14	86.12	84.00	80.45	—
1982	High	84.90	85.35	83.66	82.50	81.27	79.40	73.80	71.90	70.45	67.40	67.95	67.65	66.75	68.95	68.50	87.50
	Low	82.75	83.20	81.80	78.70	79.10	71.45	68.55	68.30	64.40	63.11	65.55	64.65	64.01	65.40	67.50	63.11
	Close	84.20	83.26	82.90	79.00	79.30	69.15	69.15	69.45	65.29	65.70	67.82	64.94	65.92	68.30	68.43	—
1983	High	74.65	76.75	76.50	77.50	77.50	74.90	72.15	69.25	68.15	68.90	68.40	71.25	76.42	75.30	71.60	77.50
	Low	73.50	74.20	73.74	69.45	74.50	69.50	66.75	65.80	65.81	66.20	66.35	66.26	70.30	70.25	69.77	65.80
	Close	74.53	76.40	73.30	76.60	74.66	69.90	67.25	67.42	66.62	67.41	67.33	71.20	75.32	71.08	71.03	—
1984	High	74.60	75.50	80.00	83.40	82.70	83.80	83.40	82.15	83.80	82.05	78.25	78.79	81.85	82.54	84.40	84.40
	Low	70.60	73.25	73.20	79.25	78.20	80.30	78.15	78.70	80.31	78.35	74.75	74.05	77.70	77.90	81.50	66.75
	Close	73.80	73.80	80.00	80.00	81.00	82.80	79.30	81.65	80.98	78.42	77.13	78.09	81.74	82.39	82.39	—
1985	High	81.85	78.00	79.25	79.15	75.25	71.80	69.00	72.05	71.30	67.66	68.20	66.85	68.25	70.45	68.98	79.25
	Low	77.70	75.80	77.45	75.00	69.60	68.74	67.60	67.36	66.45	66.20	65.70	63.28	63.26	64.75	66.10	63.26
	Close	81.74	78.00	78.60	75.00	69.75	69.15	68.00	69.85	66.95	66.95	65.76	64.18	67.60	66.40	66.33	—
1986	High	67.55	67.88	66.65	64.25	62.90	61.10	60.90	62.39	63.45	62.10	63.60	64.48	65.85	67.25		
	Low	66.35	66.52	61.86	62.00	59.95	59.30	59.25	60.45	60.50	59.60	58.80	59.50	61.90	60.70		
	Close	67.55	66.52	63.13	63.00	60.25	60.05	60.48	67.34	60.75	62.06	60.32	63.45	65.69	66.80		
1987	High	46.70	41.85														
	Low	40.50	38.30														
	Close	41.00	40.70														

Source: N.Y. Cotton Exchange

T.184

Month End Open Interest of Cotton Futures at New York In Contracts

Year	Jan.	Feb.	Mar	Apr	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1980	54,046	57,891	44,363	38,596	31,753	27,276	39,711	46,814	49,370	45,433	40,208	38,022
1981	32,078	34,782	25,882	24,108	26,793	27,286	26,009	30,014	32,121	31,671	29,157	28,584
1982	30,296	31,740	30,230	31,422	27,665	24,675	24,978	25,052	27,047	26,070	26,949	26,581
1983	29,544	34,165	36,109	33,990	35,026	33,851	31,402	33,981	31,531	29,272	30,868	30,758
1984	32,246	28,060	34,212	29,596	30,569	22,239	21,734	21,576	20,419	22,547	19,211	16,614
1985	19,790	17,660	18,678	14,101	16,481	15,381	19,386	20,861	21,011	22,889	23,196	21,748
1986	23,326	20,824	20,112	20,121								

Source: N.Y. Cotton Exchange

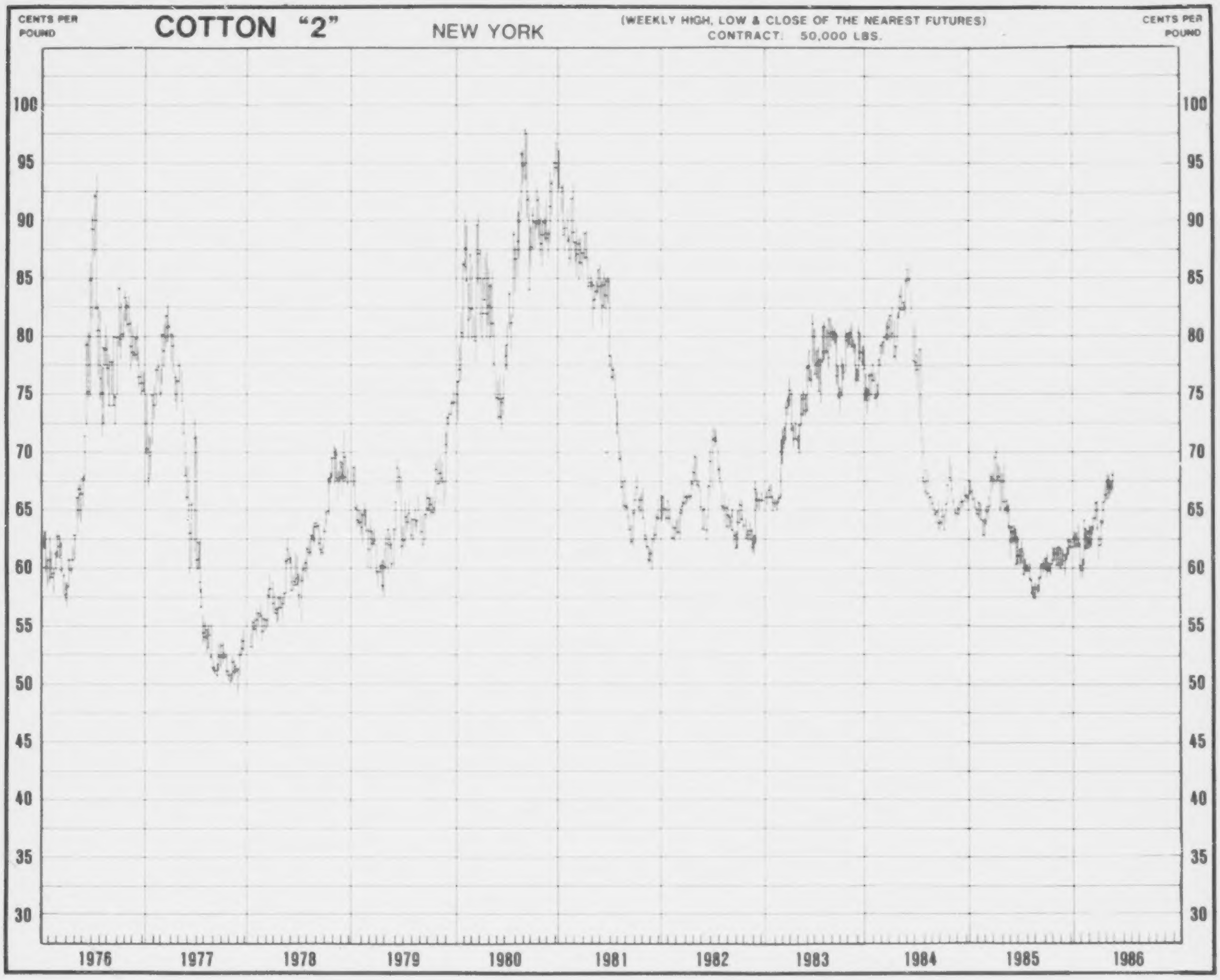
T.182

Volume of Trading of Cotton Futures at New York In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	286,058	278,901	290,133	206,682	191,067	128,393	175,619	188,542	224,323	186,615	173,081	173,133	2,523,447
1981	156,303	166,292	150,297	117,653	90,157	117,249	99,175	95,312	96,956	120,301	115,833	89,985	1,415,213
1982	100,242	104,444	103,697	106,892	95,597	151,068	116,211	99,674	101,119	94,265	98,597	83,988	1,255,202
1983	97,947	123,620	139,032	132,447	139,953	153,932	143,116	156,680	121,972	113,759	137,472	90,187	1,550,117
1984	124,735	133,891	127,448	126,780	139,988	111,050	71,522	51,941	39,519	83,631	86,729	39,907	1,137,141
1985	61,860	57,034	61,791	65,709	47,606	47,604	41,069	40,524	42,747	55,046	63,829	51,543	636,492
1986	73,576	77,152	57,019	74,160									

Source: N.Y. Cotton Exchange

T.183



United States Government Crop Forecasts and Actual Cotton Crops

Year	Forecasts of Production (1,000 Bales of 480 Lbs.[1])					Actual Crop	Forecasts of Yields (In Lbs. Per Harv. Acre)					Actual Yield
	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1		Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1	
1975	9,416	9,309	9,059	9,034	8,476	8,302	484	479	467	466	437	453
1976	10,734	10,375	10,251	9,891	10,264	10,581	466	451	445	435	451	465
1977	13,535	13,302	13,317	13,832	14,496	14,389	506	495	500	503	525	520
1978	11,820	11,155	10,873	10,981	10,841	10,856	462	425	429	418	421	420
1979	13,710	14,245	14,356	14,544	14,527	14,629	497	525	528	535	534	547
1980	12,812	11,689	11,589	11,224	11,125	11,122	461	421	419	408	411	404
1981	14,789	15,507	15,476	15,560	15,733	15,646	515	540	540	543	546	543
1982	11,143	11,029	11,365	11,947	12,102	11,963	563	569	587	605	613	590
1983	7,810	7,776	7,550	7,497	7,725	7,771	503	501	487	504	506	508
1984	12,569	13,276	13,272	13,271	13,292	12,982	583	615	620	613	610	600
1985	13,780	13,655	13,638	13,875	13,810	13,534	638	632	633	644	644	630

[1] Net Weight bales. *Source: Crop Reporting Board, U.S.D.A.*

T.175

United States Production of Cotton (Lint) & American-Pima In Thousands of 480 Pound Net Weight Bales

	Upland														
Year	Alabama	Arizona	Arkansas	California	Georgia	Louisiana	Mississippi	Missouri	No. Car.	Oklahoma	So. Car.	Tennessee	Texas	New Mexico	Total Amer. Pima
1978	291	1,068	660	1,940	111	478	1,378	188	45	355	115	235	3,792	101	93.4
1979	324	1,280	606	3,408	152	690	1,437	157	43	522	116	171	5,515	104	98.6
1980	275	1,354	444	3,109	86	460	1,143	177	52	205	77	200	3,320	107	104.2
1981	422	1,556	604	3,535	159	742	1,565	168	95	440	164	315	5,663	141	79.6
1982	460	1,095	534	3,073	235	870	1,760	204	102	238	155	339	2,700	78	98.7
1983	183	725	323	1,971	112	532	900	73	43	145	53	151	2,380	70	94.7
1984	447	1,097	612	2,913	281	1,056	1,650	187	120	183	170	337	3,680	87	130.4
1985[1]	525	940	705	3,150	370	750	1,650	200	115	290	180	400	4,000	75	148.5

[1] Preliminary, December estimate. *Source: Crop Reporting Board, U.S.D.A.* T.176

Gross Entries of Cotton into U.S. Government Loan Program In Thousands of Running Bales

Crop Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May[1]	June[1]	July[1]	Seasonal Total
1978-9	0	5	26	89	215	584	352	189	68	16	14	[2]	1,560
1979-0	0	[2]	23	294	319	600	316	110	51	35	8	[2]	1,759
1980-1	0	[2]	8	253	528	912	343	204	36	28	16	[2]	2,328
1981-2	0	9	132	293	1,081	2,796	1,120	473	117	39	21	2	6,083
1982-3	0	46	143	674	1,857	1,590	4,503	4,160	43	23	13	3	5,062
1983-4	0	0	165	227	253	513	188	264	127	9	32	5	1,765
1984-5	0	1	11	98	563	776	1,057	324	62	44	32	5	2,977
1985-6	31	202	771	1,497	1,406	2,375	781	159	61				

NOTE: Seasonal totals are net, due to allowances for rejections. [1] Entries after April 30 represent late reporting. [2] Less than one thousand bales. *Sources: N.Y. Cotton Exchange; Commodity Credit Corporation* T.178

Average Wholesale Price of Cotton Yarn[1] (30/1, Combed, Knitting) on Cones Index 1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1978	153.2	155.2	157.5	158.1	160.1	162.7	163.7	163.7	163.7	165.0	165.0	165.6	161.1
1979	165.6	166.3	165.6	165.6	165.9	166.9	166.9	167.3	167.9	169.9	172.8	176.3	168.1
1980	180.6	198.3	200.0	203.0	204.6	202.7	203.3	206.3	206.3	207.6	210.6	211.6	202.9
1981	212.9	214.6	214.6	212.6	211.9	211.9	210.3	207.0	203.0	199.0	196.7	192.1	207.2
1982	244.0	243.6	242.8	242.2	242.7	240.3	240.4	240.1	239.0	237.4	237.1	236.4	240.0
1983	234.8	234.1	234.2	236.1	236.1	236.7	237.5	239.7	241.5	242.6	243.6	244.3	238.4
1984	244.9	246.2	246.7	248.2	248.1	247.8	248.0	244.9	242.9	242.0	240.9	239.7	245.0
1985[2]	239.5	237.3	237.1	235.5	235.7	235.3	235.1	232.3	231.7	231.7	231.8	231.7	234.6
1986[2]	227.5												

[1] Natural stock, f.o.b. mill. [2] Preliminary. *Source: Bureau of Labor Statistics* (0326-01) T.181

U.S. Daily Rate of Total Cotton Mill Consumption [2] In Ths. of Running Bales[3]

Crop Yr.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Average
1978-9	22,941	22,780	24,090	23,809	21,735	24,114	23,567	25,306	23,358	24,193	24,454	20,127	23,373
1979-0	23,617	24,177	25,188	24,099	21,813	24,160	25,353	25,654	24,899	24,781	23,883	18,473	23,836
1980-1	22,130	22,816	23,884	22,885	19,000	21,773	22,312	21,544	21,741	22,060	21,260	19,250	26,066
1981-2	21,448	20,679	22,420	20,138	15,985	18,898	19,885	19,720	20,476	19,580	18,382	15,980	19,466
1982-3	19,295	18,954	20,794	19,526	17,009	20,211	21,505	21,966	21,525	22,042	21,739	18,444	20,251
1983-4[3]	22.6	22.4	22.9	22.3	18.7	23.5	22.4	21.9	21.5	22.1	20.1	17.7	21.6
1984-5	21.4	20.4	21.4	19.5	16.9	20.0	20.9	20.8	21.0	21.9	21.0	18.5	20.3
1985-6[1]	22.9	22.5	24.6	23.9	19.5	23.8	24.9	24.5					

[1] Preliminary. [2] Not seasonally adjusted. [3] Data prior to 1983 are in RUNNING BALES. *Source: Bureau of the Census, U.S.D.C.* T.180

COTTON

Exports of American Cotton from the United States In Thousands of Running Bales

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Total
1976-7	274	342	217	265	376	354	509	536	548	400	462	282	4,564
1977-8	181	200	149	333	496	521	502	704	640	510	528	456	5,218
1978-9	524	388	283	355	464	517	577	574	602	542	614	410	5,849
1979-0	463	428	390	630	902	737	1,025	1,150	916	911	686	540	8,778
1980-1	402	393	237	436	541	669	2,352	733	498	458	320	264	7,303
1981-2	990	261	262	478	737	653	754	873	676	484	498	396	7,062
1982-3	342	351	293	382	377	438	368	487	612	464	831	409	5,354
1983-4	383	322	261	441	632	663	719	896	723	607	422	365	6,434
1984-5[1]	452	264	292	484	629	766	766	625	544	426	353	252	5,853
1985-6[1]	193	187	207	223	187	396							

[1] Preliminary. *Source: Foreign Agricultural Service, U.S.D.A.* T.185

U.S. Exports of American Cotton to Countries of Destination In Thousands of 480 lb. Bales

Yr. Beg. Aug. 1	Bangladesh	Canada	Hong Kong	France	W. Germany	India	Italy	Japan	Netherlands	Spain	Sweden	United Kingdom	Rep. of Korea	P.R. China	Taiwan	USSR	World Total
1976-7	122	187	358	45	36	273	85	973	12	86	17	66	913	0	436		4,565
1977-8	46	214	479	80	65	1	77	1,028	21	64	21	59	1,172	443	490		5,219
1978-9	116	222	427	63	96	1	146	1,342	18	65	23	72	1,278	648	454		6,180
1979-0	71	272	636	92	204	0	185	1,588	11	131	21	72	1,484	2,268	728		9,229
1980-1	33	267	205	42	112	—	54	1,139	1	60	10	38	1,303	1,375	351		5,926
1981-2	50	167	243	58	119	—	106	1,626	2	57	17	43	1,412	848	777	0	6,567
1982-3	88	238	158	45	163	0	105	1,286	7	72	23	50	1,322	20	378	192	5,207
1983-4	135	227	283	154	195	—	252	1,709	6	114	28	67	1,269	12	495	351	6,785
1984-5[1]	60	195	125	132	195	—	301	1,464	4	118	22	72	1,257	6	513	329	6,211
1985-6[2]																	

[1] Preliminary. [2] Estimate. *Source: Bureau of the Census* T.189

U.S. Exports of Cotton Cloth (Raw Cotton Equivalent) In Thousands of Bales (Net Weight—480 Lbs.)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1976	42.8	41.6	54.6	48.0	41.1	47.8	39.0	39.0	45.8	57.5	45.6	53.2	556.0
1977	42.8	51.6	47.1	47.2	36.9	36.5	29.4	31.0	40.2	24.8	26.3	46.3	460.1
1978	32.2	35.2	37.1	35.2	34.5	33.0	31.4	35.9	37.9	44.8	50.1	50.4	457.9
1979	45.6	45.4	56.7	44.1	50.5	57.0	46.2	47.1	55.8	59.0	62.3	58.1	627.7
1980	50.6	54.2	52.4	45.2	42.4	47.2	34.6	44.3	48.0	42.0	38.4	40.9	540.2
1981	34.8	28.2	35.8	35.7	30.9	30.8	21.7	25.9	25.8	27.5	26.6	21.9	345.6
1982	18.2	18.6	20.4	20.6	24.3	24.8	22.7	15.7	18.4	20.7	18.4	16.4	239.2
1983	20.1	15.1	18.2	17.2	14.2	15.9	12.7	14.0	15.4	16.0	15.3	14.8	188.8
1984	14.2	12.3	13.6	13.4	14.2	16.9	13.5	12.8	15.7	16.7	14.1	13.5	170.9
1985[1]	18.7	15.2	19.8	21.2	17.3	18.6	65.7	21.6	24.7	17.4	15.6	14.7	270.7

[1] Preliminary. *Source: Bureau of the Census* T.193

United States Cotton Ginnings

Crop Year	Ginnings to: (In Thousands of Running Bales) Aug. 1	Aug. 16	Sept. 1	Sept. 16	Oct. 1	Oct. 15	Nov. 1	Nov. 15	Dec. 1	Dec. 15	Jan. 1	Jan. 15	Feb. 1	Total Crop
1978-9	144	N.A.	672	788	1,490	2,904	4,659	5,890	6,668	8,096	9,317	9,723	10,049	10,549
1979-0	72	N.A.	539	697	916	2,105	4,799	7,287	9,937	11,772	12,728	13,439	13,832	14,262
1980-1	200	N.A.	582	745	1,312	2,566	4,600	6,698	7,841	8,808	9,873	10,430	10,676	10,826
1981-2	44	N.A.	427	645	1,725	3,299	5,541	7,688	10,156	12,023	13,460	14,276	14,778	15,150
1982-3	40	N.A.	453	578	1,529	2,660	5,288	7,202	8,823	9,627	10,574	10,974	11,300	11,526
1983-4	2	N.A.	315	397	763	1,748	3,348	4,638	6,003	6,880	7,209	7,389	7,476	7,504
1984-5	163	N.A.	634	780	1,175	2,277	4,321	7,025	8,972	10,478	11,079	11,682	12,319	12,545
1985-6[1]	70	N.A.	681	1,066	2,432	4,331	6,254	8,226	10,134	11,376	12,369	12,785	12,953	12,988

[1] Preliminary. *Source: Bureau of Census* T.171

Cotton Government Loan Program in the United States

Crop Yr. Beginning Aug.	Acreage — Thousand Acres		Loan Rate — ¢ Per Lb.		Supply & Distribution of Gov't Controlled Cotton — In Thousands of Running Bales						
	Prospective Planting Intentions	Harvested	Avg. at Spot[2] Mkts.	Target Price	Stocks—Aug. 1 Gov't Owned	Stocks—Aug. 1 Loan	Stocks—Aug. 1 Total Stock	Loan Entries	Total Supply	Loan Cotton Repossessed	Total Distribution
1980-1	14,843	13,215	48.00	58.40	—	542	542	2,328	2,870	2,218	2,218
1981-2	14,484	13,841	52.46	70.87	—	652	652	6,082	6,734	2,975	2,975
1982-3	12,599	9,734	57.08	71.00	2	3,757	3,759	5,056	8,815	4,049	4,049
1983-4	9,281	7,348	55.00	76.00	334	4,432	4,766	1,782	6,416	5,958	5,958
1984-5	10,759	10,379	55.00	81.00	121	469	590	2,974	3,564	1,755	1,755
1985-6[1]	10,957	10,307	57.30	81.00	152	1,657	1,809	6,600	8,409	1,000	1,000
1986-7[3]	9,711		55.00	81.00							

[1] Preliminary. [2] Strict low middling, 1 1/16" at 10 markets. [3] Estimate. *Source: Department of Agriculture* T.174

U.S. American Upland Cotton—Ginnings, by Staple Length In Thousands Running of Bales

Year beginning August	(13/16") 26 & under	(7/8") 28	(29/32") 29	(15/16") 30	(31/32") 31	(1") 32	(1 1/32") 33	(1 1/16") 34	(1 3/32") 35	(1 1/8") 36 & Over	All staple lengths
1977	[2]	7	62	656	1,645	1,716	1,342	2,402	4,558	1,521	13,909
1978	1	9	89	432	877	1,335	1,090	2,497	3,113	1,017	10,459
1979	4	24	126	650	1,453	1,775	1,239	1,462	4,378	3,056	14,166
1980	7	51	164	452	798	1,040	903	1,670	3,318	2,322	10,724
1981	2	25	155	805	1,924	1,700	1,124	2,725	4,419	2,194	15,073
1982	2	16	78	412	935	676	454	985	3,509	4,362	11,430
1983	3	22	65	251	482	471	513	1,012	2.531	2,063	7,413
1984[1]	7	45	122	414	761	719	715	1,149	2,858	5,630	12,419

[1] Preliminary. [2] Less than 500 bales. *Source: Agricultural Marketing Service, U.S.D.A.* T.179

Purchases Reported by Exchanges in Designated U.S. Spot Markets In Running Bales

Year Beginning August 1	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Total
1979	284,889	229,192	529,677	1,499,688	2,498,483	2,901,588	1,068,127	642,337	333,008	139,875	123,119	110,892	10,360,875
1980	107,920	92,769	499,579	961,488	1,565,792	1,143,395	878,913	576,871	268,136	243,096	142,885	121,300	6,602,144
1981	115,017	201,791	468,124	821,205	1,606,620	2,049,345	1,163,850	877,323	403,824	449,948	277,553	420,336	8,854,936
1982	122,082	150,629	375,083	717,258	1,160,522	1,139,575	793,071	829,016	356,510	434,794	478,658	247,150	6,804,348
1983	236,607	270,662	688,534	1,022,458	1,639,279	1,697,601	750,963	424,475	162,863	171,484	59,012	126,720	7,250,658
1984	258,511	154,557	271,195	558,999	1,153,086	1,015,087	570,259	287,483	303,501	159.540	123,089	131,035	4,986,342
1985	166,725	152,795	258,891	395,097	570,460	671,758	389,436	416,654					

[1] Purchases are for 10 markets; commencing February 1980 purchases are for nine markets; and commencing March 28, 1983 purchases are for eight markets. *Source: Agricultural Marketing Service: U.S.D.A.* T.190a

How to keep your Commodity Year Book statistics up-to-date continuously throughout the year.

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Commodity Research Bureau
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75 MONTGOMERY ST., JERSEY CITY, N.J. 07302

COTTON

Cotton Cloth[1] Production in the United States In Millions of Linear Yards

Year	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year	Year	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
1975	902	978	1,051	1,164	4,095	1981	966	961	942	987	3,856
1976	1,268	1,221	1,099	1,129	4,718	1982	979	961	868	987	3,794
1977	1,207	1,145	982	1,023	4,356	1983	1,068	1,052	1,032	1,040	4,192
1978	1,056	1,019	912	1,020	4,007	1984	1,069	1,031	947	955	4,002
1979	1,018	998	914	927	3,858	1985[2]	1,014	982	916	937	3,850
1980	1,226	1,182	987	1,062	4,456	1986					

[1] Cotton broadwoven goods over 12 inches in width. [2] Preliminary. *Source: Bureau of the Census* T. 192

Raw Cotton Equivalent of U.S. Textile Imports In Thousands of Pounds

	Yarn	Fabric	Household Articles	Wearing Apparel	Floor Covering	Total Weight	Bales[2]
1978	30,761	304,371	77,875	430,224	2,193	845,424	1,761
1979	12,392	240,011	65,328	426,269	2,092	746,092	1,554
1980	19,421	263,065	61,872	463,793	2,779	810,930	1,689
1981	24,083	355,000	76,279	503,977	2,561	961,900	2,004
1982	28,508	270,525	91,831	510,519	2,408	903,791	1,883
1983	42,131	352,253	110,786	622,806	7,526	1,135,502	2,366
1984[1]	54,706	473,050	163,350	759,720	14,649	1,465,475	3,053
1985							

[1] Preliminary. [2] In 1,000 480-lb. Bales. *Source: Economic Research Service, U.S.D.A.*

Raw Cotton Equivalent of U.S. Textile Exports In Thousands of Pounds

	Yarn	Fabric	Household Articles	Wearing Apparel	Floor Covering	Total Weight	Bales[2]
1978	31,967	192,569	45,615	61,750	23,844	355,745	741
1979	34,145	272,879	54,770	90,918	25,248	477,962	996
1980	47,025	217,185	58,488	185,908	19,625	528,233	1,101
1981	38,072	134,379	54,407	122,936	17,505	367,300	765
1982	30,080	89,476	39,473	80,034	14,277	253,342	528
1983	31,224	61,848	42,867	72,070	11,601	219,614	458
1984[1]	20,202	64,762	37,840	68,264	15,014	206,081	429
1985							

[1] Preliminary. [2] In Equivalent 480-lb. net weight bales. *Source: Economic Research Service, U.S.D.A.*

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Cottonseed and Products

A byproduct of cotton ginning, cottonseed production is not directly affected by domestic and international supply/demand factors that influence other oilseed output. World production of cottonseed for 1985/86 was estimated by the USDA in March 1986 at 31.7 million tonnes, down about 6 percent from the previous season's record production of 33.6 million tonnes. Production in China, now the world's largest producer, was estimated to be off about 17 percent from 1984/85 output due primarily to reduced acreage as farmers shifted to other crops. Production in the USSR, the next largest producer, was estimated to have increased by about 3 percent, with U.S. production up by about the same percentage.

World cottonseed trade was expected to increase only slightly in 1985/86, accounting for only about 1.0 percent of world production. Mexico is the most important market for U.S. cottonseed, accounting for nearly 96 percent of the total. Denmark is the world's largest importer of cottonseed meal, but it is reported to have reduced its consumption because of concern over aflatoxin. However, Danish importers have reportedly succeeded in obtaining contracts from Australia and China guaranteeing low aflatoxin levels.

Global production of cottonseed oil in 1985/86 was forecast by the USDA in March 1986 at 3.64 million tonnes, 5 percent lower than in 1984/85, primarily because of reduced output in China. However, world consumption was expected to decline by only about 2 percent, to 3.68 million tonnes, reflecting attractive prices relative to competing oils. Cotton oil normally sells at a premium of 1 to 2 cents per pound over soybean oil but, in the first quarter of the 1985/86 season, crude cotton oil prices in the Mississippi Valley averaged 1.6 cents less than crude soybean oil in Central Illinois. The U.S. is the world's largest exporter of cottonseed oil. Exports account for 40 to 50 percent of U.S. production, with Venezuela, Egypt and Japan the largest U.S. export markets.

World Production of Cottonseed In Thousands of Metric Tons

Crop Year	Sudan	Argentina	Brazil	China	Egypt	India	Mexico	Pakistan	Peru	Turkey	South Africa	USSR	United States	World Total
1979–0	215	330	1,057	3,752	792	2,832	560	1,436	160	762	128	4,411	5,242	24,665
1980–1	192	315	1,133	4,602	844	2,749	590	1,429	151	800	116	5,082	4,056	24,816
1981–2	306	170	1,164	5,046	805	2,961	525	1,497	130	781	72	5,279	5,803	27,491
1982–3	421	290	1,198	6,117	769	3,047	313	1,648	60	782	53	5,094	4,304	26,650
1983–4	438	220	995	7,883	680	2,647	377	1,021	100	835	73	4,815	2,791	26,096
1984–5[1]	435	294	1,630	10,630	664	3,447	450	2,014	130	927	100	4,755	4,671	33,710
1985–6[2]			1,155	8,880	775	3,132		1,870		815		4,970	4,872	30,004

[1] Preliminary. [2] Estimated. *Source: Foreign Agricultural Service, U.S.D.A.* T.194

Salient Statistics of Cottonseed in the United States

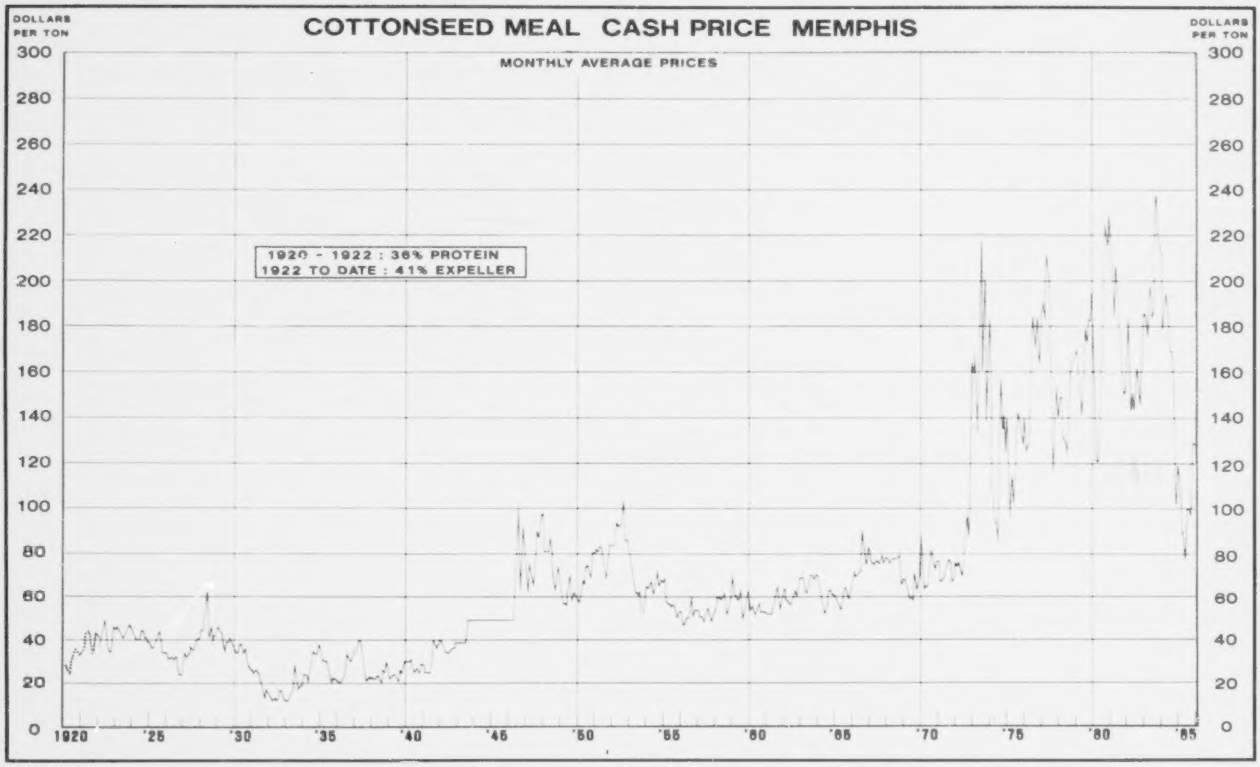
						Products Produced					Yield Per Ton Crushed				
Year Begin. Aug.	Farm Value of Production Mil. $	Exports	Seed for Planting	Residual[2]	Crushings	Oil	Meal	Linters[5]	Hulls	Other[3]	Oil	Meal	Linters	Hulls	Total Value of Pdt's. $ Per Ton
		— In Thousands of Short Tons —				— In Million Pounds —					— In Pounds —				
1979–0	697.6	94	196	725	4,230	1,423	4,098	1,129							194.65
1980–1	574.5	133	— 922—		4,076	1,195	3,580	1,097							
1981–2	549.0	45	—1,394—		4,575	1,551	4,380	1,210							
1982–3	368.2	12	—1,342—		3,800	1,134	3,176								
1983–4[1]	497.0	50	— 698—		2,583	777	2,268								
1984–5[1]		60	—1,285—		3,514	1,174	3,464								
1985–6[4]		75	—1,401—		3,800	1,213	3,492								

[1] Preliminary. [2] Mainly used on farms for feed & fertilizer. [3] Including loss; and also motes, grabbots & hullfibers. [4] Forecast. [5] In THOUSANDS OF RUNNING BALES. *Source: Economic Research Service, U.S.D.A.* T.195

Supply & Distribution of Cottonseed Oil in the United States In Millions of Pounds

					Disappearance				Utilization							
									Food Uses					Nonfood Uses		
Crop Year[3] Beginning Oct.	Production	Imports for Consumption	Stocks Oct. 1	Total Supply	Exports	Total	Domestic	Per Capita Consumption — in Lbs. —	Shortening	Margarine	Salad & Cooking Oils	Other	Total	Foots & Loss	Other	Total
1980	1,195	—	122	1,317	710	1,237	527		132	26	382	14	555			
1981	1,551	—	80	1,631	847	1,527	680		167	22	402	12	603			
1982	1,134	2	104	1,240	546	1,150	604		142	31	444	16	634			
1983[1]	777	18	90	885	303	835	532		143	35	366	17	562			
1984[2]	1,174	—	50	1,224	433	1,117	684		156	8	399	3	607			
1985–6[2]	1,213		107	1,320	485	1,210	725									

[1] Preliminary. [2] Estimate. *Source: Economic Research Service, U.S.D.A.* T.201



U.S. Consumption of Cottonseed Oil in End Products[1] In Millions of Pounds

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Total
1981-2	43.4	46.5	44.8	58.6	55.0	45.7	40.3	56.8	51.7	56.0	52.5	42.2	593.5
1982-3	54.1	50.4	47.3	56.1	60.0	49.0	53.2	52.0	53.0	56.6	59.1	54.7	645.5
1983-4	54.3	42.4	39.7	46.8	46.9	47.5	55.5	52.1	48.8	57.3	50.1	45.6	587.0
1984-5[2]	43.1	35.5	42.8	55.1	63.5	54.2	58.4	59.2	52.3	64.0	50.2	45.6	623.8
1985-6[2]	40.4	44.8	58.8	50.5	49.1	47.8	52.6						

[1] Includes small amount exported but does not include imported oil. [2] Preliminary. *Source: Bureau of the Census* T.206

U.S. Exports of Cottonseed Oil (Crude & Refined) In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1981	77.0	29.3	66.7	82.1	72.2	85.7	46.9	35.9	46.5	42.2	37.4	80.5	702.3
1982	41.2	146.2	110.6	68.6	74.5	67.0	63.7	47.3	68.4	52.2	60.0	54.7	854.4
1983	41.8	58.8	97.0	25.8	53.0	23.8	42.5	15.5	20.6	10.5	18.4	21.8	429.5
1984	36.4	39.9	31.8	32.9	46.5	12.8	29.9	8.8	13.1	11.0	37.1	77.3	377.5
1985[1]	47.1	72.7	37.7	38.9	22.9	20.6	17.5	13.1	36.2	19.1	30.1	65.6	421.5

[1] Preliminary. *Source: Dept. of Commerce* T.205

Average Wholesale Price of Cottonseed Meal (41% Solvent[1]) at Memphis In Dollars Per Short Ton

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1981	205.60	178.75	185.00	206.90	201.75	190.00	182.50	183.10	166.50	150.00	150.60	179.00	181.64
1982[1]	184.70	159.40	138.00	148.10	143.75	150.00	158.75	161.50	150.00	145.60	161.70	166.25	155.65
1983	169.40	165.60	153.00	173.40	167.50	164.90	186.90	227.00	237.50	245.00	219.20	214.00	232.34
1984	212.60	178.10	187.30	194.10	190.00	177.50	169.30	168.90	151.60	114.90	101.60	119.40	163.78
1985	109.75	105.60	89.10	82.75	78.10	94.40	99.75	100.00	96.90	116.50	128.75	127.80	102.45
1986	146.25	128.75	115.60										

[1] Prior to 1982, prices are for 41% protein-expeller. *Source: Economic Research Service, U.S.D.A.* T.196

Cottonseed Crushed (Consumption) in the United States In Thousands of Short Tons

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Total
1979–0	258	175	304	394	379	442	388	454	374	388	359	315	4,230
1980–1	330	306	365	426	400	440	378	372	314	278	248	218	4,076
1981–2	191.6	186.2	323.5	455.5	473.3	478.8	446.6	482.3	424.1	426.7	357.1	329.6	4,575
1982–3	290.3	285.8	391.5	481.7	432.6	435.6	368.7	321.7	240.5	214.6	164.2	172.3	3,800
1983–4	166.6	120.7	187.9	301.8	296.6	347.8	289.7	294.7	205.6	173.2	124.3	74.1	2,579
1984–5[1]	70.2	72.6	274.3	423.1	424.2	453.4	394.5	395.3	316.1	279.5	219.6	191.3	3,514
1985–6[1]	194.6	197.0	338.0	441.4	368.7	431.5	361.0	351.7					

[1] Preliminary. *Source: Bureau of Census* T.197

Production of Cottonseed Cake and Meal in the United States In Thousands of Short Tons

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Total
1979–0	119.7	79.3	145.9	183.4	173.0	201.0	178.0	204.0	168.9	181.6	167.8	148.5	1,951
1980–1	152.3	144.0	170.3	202.1	191.1	204.9	176.3	173.4	145.5	130.8	114.2	104.2	1,909
1981–2	88.3	88.7	152.1	220.2	219.0	226.9	206.5	220.3	195.3	195.9	164.4	150.2	2,128
1982–3	129.8	129.3	173.5	219.4	197.3	195.1	167.0	146.7	107.8	97.1	71.4	78.9	1,713
1983–4	78.8	55.3	86.7	144.5	140.9	162.4	134.7	136.2	95.1	76.7	55.9	35.8	1,203
1984–5[1]	32.2	32.6	127.3	198.4	198.7	207.7	180.4	181.6	145.0	128.8	99.1	86.2	1,619
1985–6[1]	87.9	90.7	153.1	187.6	169.4	199.1	166.4	159.7					

[1] Preliminary. *Source: Bureau of Census* T.198

U.S. Production of Crude Cottonseed Oil In Millions of Pounds

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Total
1979–0	85.5	53.5	98.6	126.5	119.9	142.8	125.7	145.1	119.8	125.5	116.8	104.2	1,363
1980–1	104.9	93.1	116.4	130.6	122.3	131.7	118.9	115.4	100.8	88.7	77.4	69.6	1,270
1981–2	62.1	60.9	111.2	153.5	161.8	154.1	145.6	155.9	138.4	140.1	117.5	105.9	1,507
1982–3	92.0	88.8	129.8	157.3	143.3	137.6	117.7	102.6	75.8	69.0	53.1	55.7	1,223
1983–4	54.6	37.1	58.6	94.6	93.6	109.5	91.3	96.6	69.3	55.4	40.1	24.4	825
1984–5[1]	21.7	21.6	84.3	132.5	132.5	141.5	124.3	123.3	96.3	87.0	67.8	62.9	1,096
1985–6[1]	60.9	60.7	105.6	129.8	117.1	136.4	115.5	112.5					

[1] Preliminary. *Source: Bureau of Census* T.199

United States Production of Refined Cottonseed Oil In Millions of Pounds

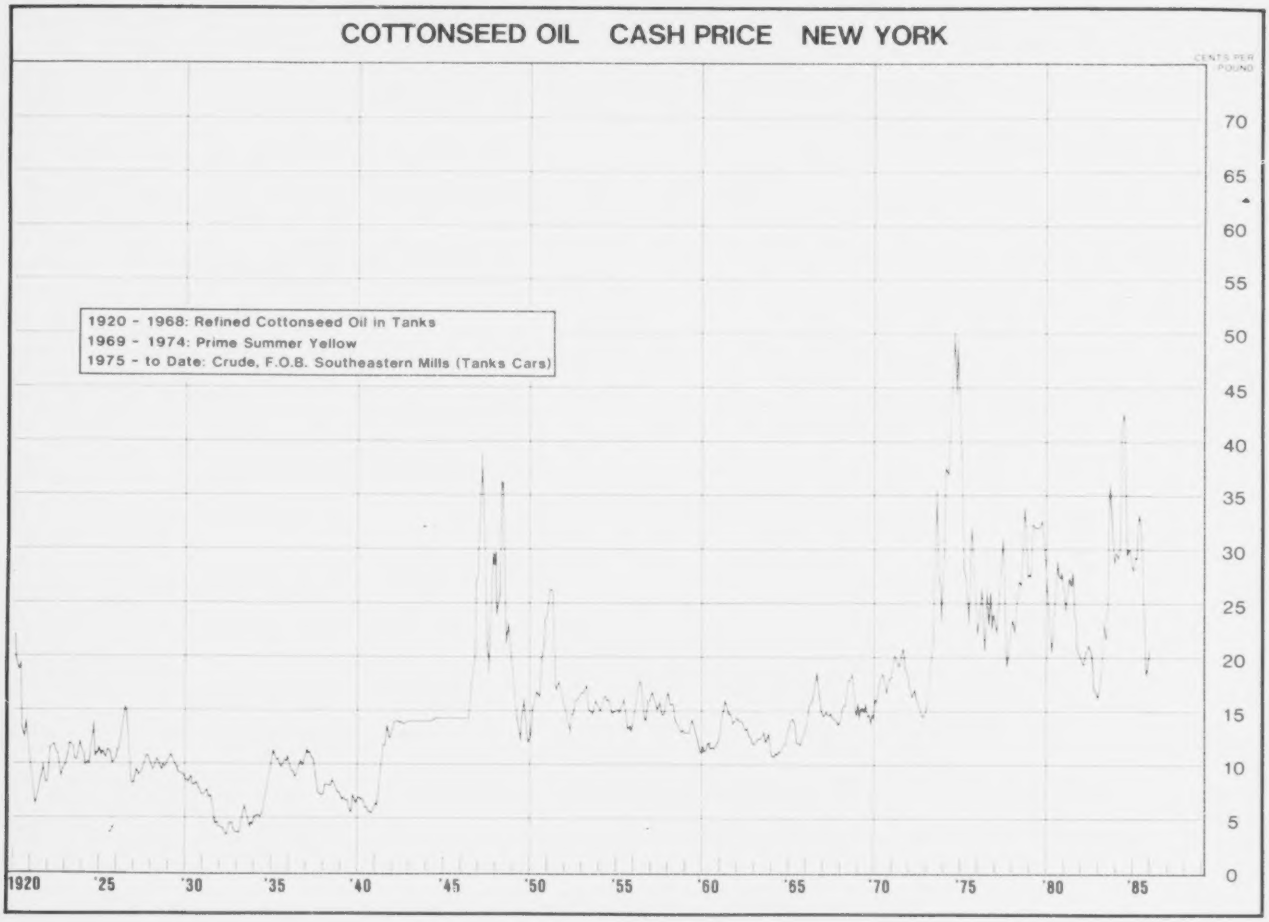
Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Total
1979–0	92.7	56.7	69.6	97.0	103.0	119.1	102.7	118.7	107.5	112.8	203.4	103.5	1,186
1980–1	96.2	94.8	94.1	119.8	125.1	131.3	99.6	102.1	113.0	82.9	79.1	73.7	1,212
1981–2	56.9	53.1	84.7	129.3	144.6	110.2	121.2	135.7	124.9	128.9	121.8	104.8	1,316
1982–3	91.3	76.7	91.5	127.3	124.5	119.2	113.4	103.1	82.6	78.0	60.1	56.5	1,124
1983–4	55.2	39.2	54.6	91.1	97.7	99.7	98.4	100.6	89.1	71.5	43.4	30.5	871
1984–5[1]	25.7	27.8	64.5	121.4	117.6	135.8	122.2	101.9	93.3	95.4	74.6	68.2	1,043
1985–6[1]	55.9	57.0	87.5	117.1	112.0	119.3	104.0						

[1] Preliminary. *Source: Bureau of Census* T.202

U.S. Stocks of Cottonseed Oil (Crude & Refined) at End of Month In Millions of Pounds

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
1979–0	117.2	86.4	93.1	129.0	144.3	173.2	198.9	212.8	188.7	165.8	167.1	144.6
1980–1	138.6	121.9	122.5	152.8	170.1	183.5	200.1	202.4	165.9	160.1	121.7	113.0
1981–2	109.4	80.0	102.6	127.2	133.1	165.7	148.3	152.0	160.1	147.8	144.5	154.1
1982–3	115.2	103.6	121.1	148.9	172.2	175.3	175.1	158.1	164.6	130.4	113.6	108.9
1983–4	96.7	89.6	82.5	108.6	144.6	152.5	152.1	172.6	167.4	131.7	111.5	86.1
1984–5[1]	61.2	49.8	57.6	74.6	79.4	89.6	98.6	114.2	114.7	107.7	105.9	124.4
1985–6[1]	131.2	106.8	106.2	127.9	130.2	162.0	182.9					

[1] Preliminary. *Source: Bureau of Census* T.203



COTTONSEED OIL CASH PRICE NEW YORK

Average Price of Crude Cottonseed Oil, F.O.B. Southeastern Mills (Tank Cars) In Cents Per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1978	23.0	22.3	25.0	25.0	27.0	26.5	27.5	29.0	34.0	28.5	27.3	27.5	26.9
1979	27.3	32.0	32.5	32.0	32.0	32.0	32.0	32.0	32.9	29.7	27.6	26.2	30.7
1980	24.3	23.8	22.4	20.4	20.9	22.3	27.8	29.0	27.5	27.2	27.8	27.0	25.0
1981	25.3	24.2	25.3	27.3	26.7	26.6	27.9	24.6	20.7	20.5	20.4	19.8	24.1
1982	19.9	19.5	19.1	20.4	21.0	21.1	20.9	20.3	18.0	16.9	16.8	16.3	19.2
1983	16.3	17.8	18.3	21.4	23.4	21.6	23.6	33.3	36.2	31.7	29.0	28.7	25.1
1984	29.8	29.1	30.1	31.4	41.1	42.6	36.3	32.7	31.0	30.6	31.0	29.3	32.9
1985	27.4	30.1	30.2	32.3	33.3	32.6	29.1	23.8	20.7	18.3	18.9	20.6	26.4

Source: Economic Research Service, U.S.D.A. T.204

U.S. Exports of Cottonseed Oil to Important Countries In Thousands of Metric Tons

Crop Year	Canada	Costa Rica	Dom. Rep.	Egypt	W. Germany	Guatemala	India	Iran	Japan	Korea	Netherlands	South Africa	Turkey	United Kingdom	Venezuela	Total
1978-9	6.0	—	37.6	135.1	1.3		0	40.8	37.3	1.3	4.0		0	2.1	30.2	299.7
1979-0	5.3	1.9	28.4	157.1	—	0	0	—	23.0	1.9	5.2		3.0	.5	72.3	330.2
1980-1	2.5	1.0	33.2	75.6	—	0	27.2	0	40.2	2.5	5.8		—	1.5	109.1	321.9
1981-2	4.3	3.1	27.3	156.2	2.3	9.9	0	0	41.2	3.0	10.2		0	3.5	91.2	384.4
1982-3	4.3	.5	6.6	66.3	3.3	15.3	0	0	34.6	2.5	5.1	1.2	0	1.5	73.8	247.5
1983-4[1]	3.5	0	4.5	31.2	7.9	1.1			16.7	2.9	2.1	1.8		3.0	55.4	137.4
1984-5[1]	3.3	1.0	3.9	55.9	—	9.8				1.8	5.8	2.0		1.5	70.0	196.2

[1] Preliminary. *Source: U.S. Bureau of the Census* T.202A

Currencies

Most world trade (60 to 70 percent) is denominated in U.S. dollars, and virtually all international commodity prices are quoted in U.S. dollars. Daily volume of foreign exchange activities has been estimated at around $50 billion in New York alone.

The U.S. dollar trended lower throughout much of 1985, a year marked by violent fluctuations in the foreign-exchange value of major currencies. In February, 1985, record highs in the U.S. dollar were registered against the British pound, French franc, Italian lira and Canadian dollar; and the highest monthly average was posted against the West German mark since December 1971.

The U.S. dollar turned lower in the second quarter of 1985 as a result of reduced interest rates on dollar deposits in Eurocurrency markets, the banking crisis in Ohio, and reports of sluggish first-quarter economic growth. On September 22, 1985, finance ministers and central bank governors of the five major industrial nations, the United States, West Germany, Great Britain, France and Japan (the Group of Five, G-5), announced a plan to bring about an orderly appreciation of non-dollar currencies through coordinated economic policies. Between March and late November of 1985, the dollar dropped nearly 24 percent on a trade-weighted basis, with more than one-half of the drop occurring after the G-5 meeting.

With the collapse of petroleum prices, lower interest rates, sluggish economic growth, and the perception that a low rate of inflation was here to stay, the exchange value of the U.S. dollar dropped further in the first quarter of 1986 and reached a post-World War II low against the Japanese yen in April. For the first time since 1914, the United States became a net debtor nation in 1985. The nation's trade deficit rose to a record $148.5 billion, according to the Department of Commerce.

Demand for U.S. dollars is influenced not only by U.S. fiscal and monetary policies, but also by economic and political developments in major industrial nations. The U.S., Japan, West Germany, Great Britain, Canada and Switzerland—all of whose currencies are traded on futures exchanges—are important members of the 24-nation Organization for Economic Cooperation and Development (OECD).

According to OECD's year-end *Economic Outlook*, economic growth in the 24 nations was an estimated 2¾ percent (annualized rate) in 1985 vs. 4.9 pct in 1984. The growth prospect in 1986 was forecast at the same 2¾ percent rate as in 1985. Inflationary pressure continued to ease during 1985, with consumer prices increasing at an average rate of 4¼ percent, and the same outlook can be expected for 1986.

In the United States, weakness in manufacturing, a reduction in inventories and depressed export markets resulted in a significant drop in GNP growth while strong consumer markets drew an increasing volume of imports in 1985. For 1986, domestic demand was expected to slacken as consumers attempted to replenish their savings from the recent extremely low level. U.S. GNP growth in 1986, according to the OECD forecast, should be around 3½ percent, vs. 3 pct in 1985. Inflation was expected to rise slightly from 3¼ to 3½ percent in 1986, up from 3 percent in 1985. Unemployment was likely to remain at the 1985 level of 7½ percent. While a further deterioration in the U.S. current account deficit could be expected, the gap was likely to stabilize or narrow slightly by the first half of 1987. The OECD forecast a rise of 3¼ percent in U.S. GNP in 1986 vs. 3 percent in 1985, and 3½ percent in the first half of 1987. Inflation was expected to continue around 3¼ to 3½ percent vs. 3 percent in 1985. Unemployment was likely to be little changed from the average of 7¼ percent in 1985. A further deterioration in the U.S. current account deficit was forecast for 1986, but by the first half of 1987, the deficit might stabilize or decline slightly.

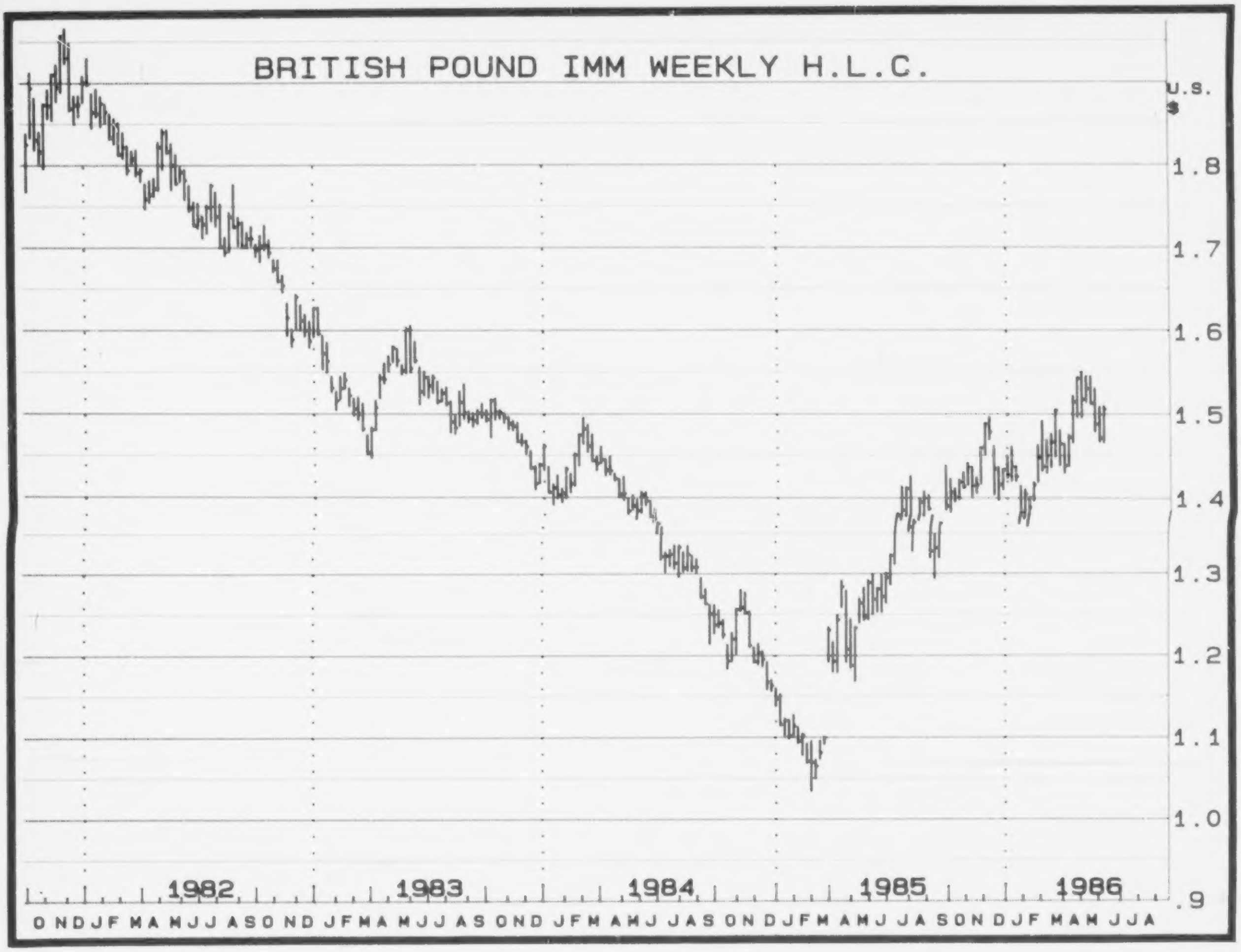
Japan's economy in 1985 was featured by continued strong expansion, low inflation, employment growth, and a strong export sector. Real GNP expanded at a 5 percent rate in 1985 vs. 5.8 percent in 1984. The growth was expected to slow to 3½ percent in 1986 due to weaker foreign and private investment activity. Inflation was about 2½ percent, marginally higher than in 1984, and was expected to drop to 1½ percent in 1986 and the first half of 1987. Japan's current account surplus was expected to increase to $57 ¼ billion in 1986 and into 1987, despite the yen's appreciation. Japan's very low unemployment rate was expected to increase only marginally in 1986, to about 2¾ percent.

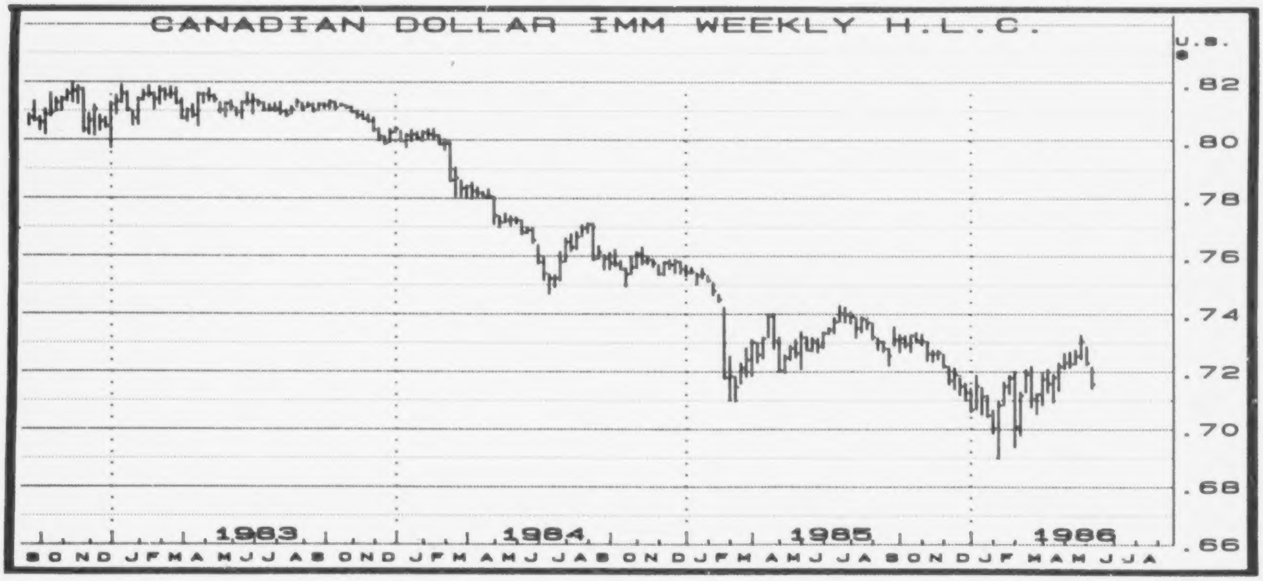
West Germany's real GNP growth rate slowed to 2¼ percent in 1985 from 2.7 percent in 1984. Labor unrest, uncertainty over environmental regulations, and rather restrictive monetary/fiscal policies limited the growth rate in 1985. Real GNP growth was expected to average 3¼ percent in 1986. Price increases in 1985 were held down to about 2¼ percent and could decline to 1¼ percent in 1986 and the first half of 1987. The unemployment situation was expected to show little improvement. The current account surplus in 1986 was expected to increase to around $20 ¼ billion from $12 ¾ billion in 1985.

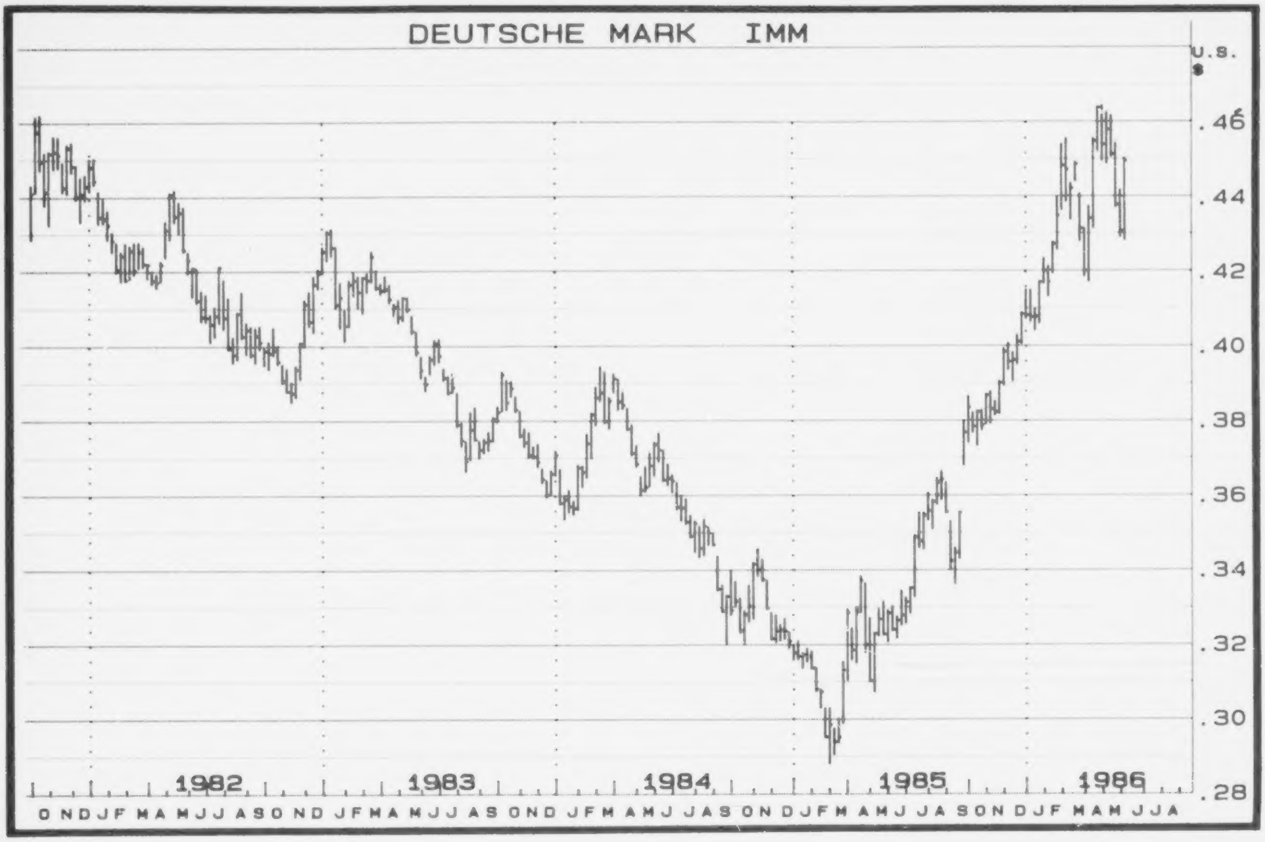
The United Kingdom posted an increase of 3¼ percent in real GNP in 1985 as the recovery picked up and effective devaluation of the pound helped export markets. GNP was expected to grow at a 2¼ percent rate in 1986. Price increases continued at about a 5 percent rate in 1985, but were forecast by OECD to slow to 4 percent in 1986. Employment growth continued to increase, but at a slower rate, with the unemployment rate expected to be around 11¾ percent in 1986. The U.K.'s current account balance was expected to remain positive. With strong growth in the service sector, it could increase to $5 billion in 1986 from $4 ¼ billion in 1985.

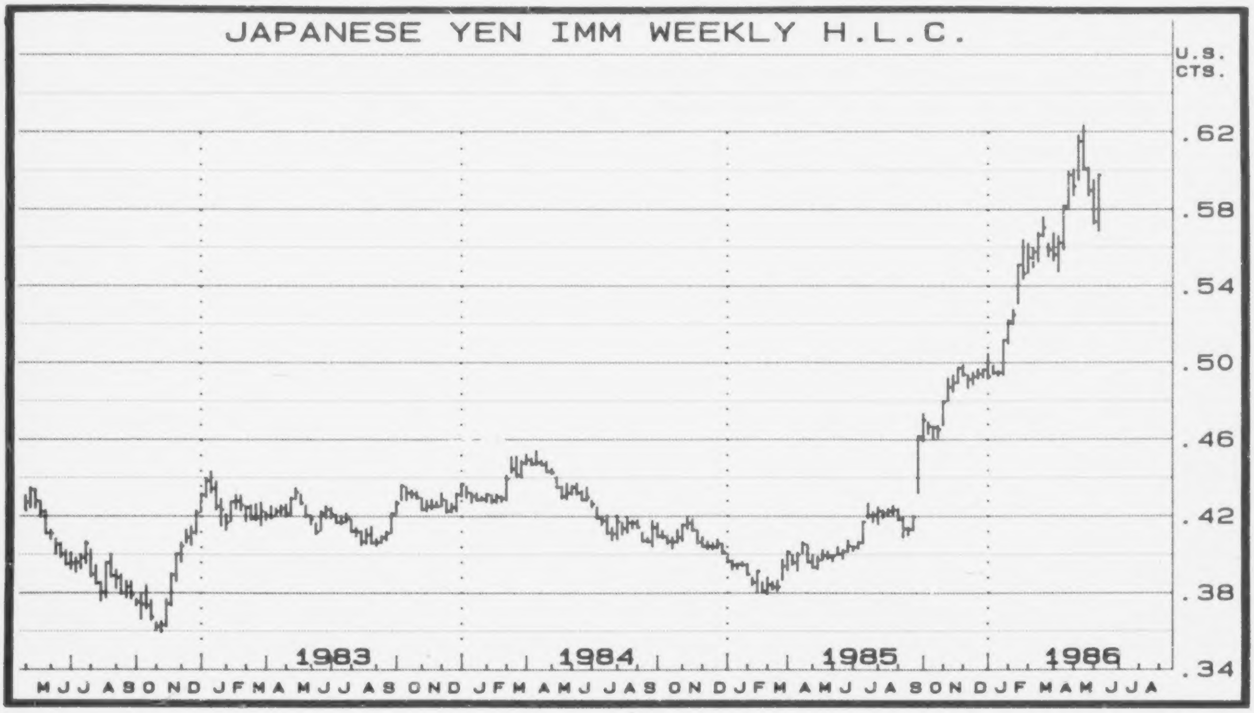
Futures Markets

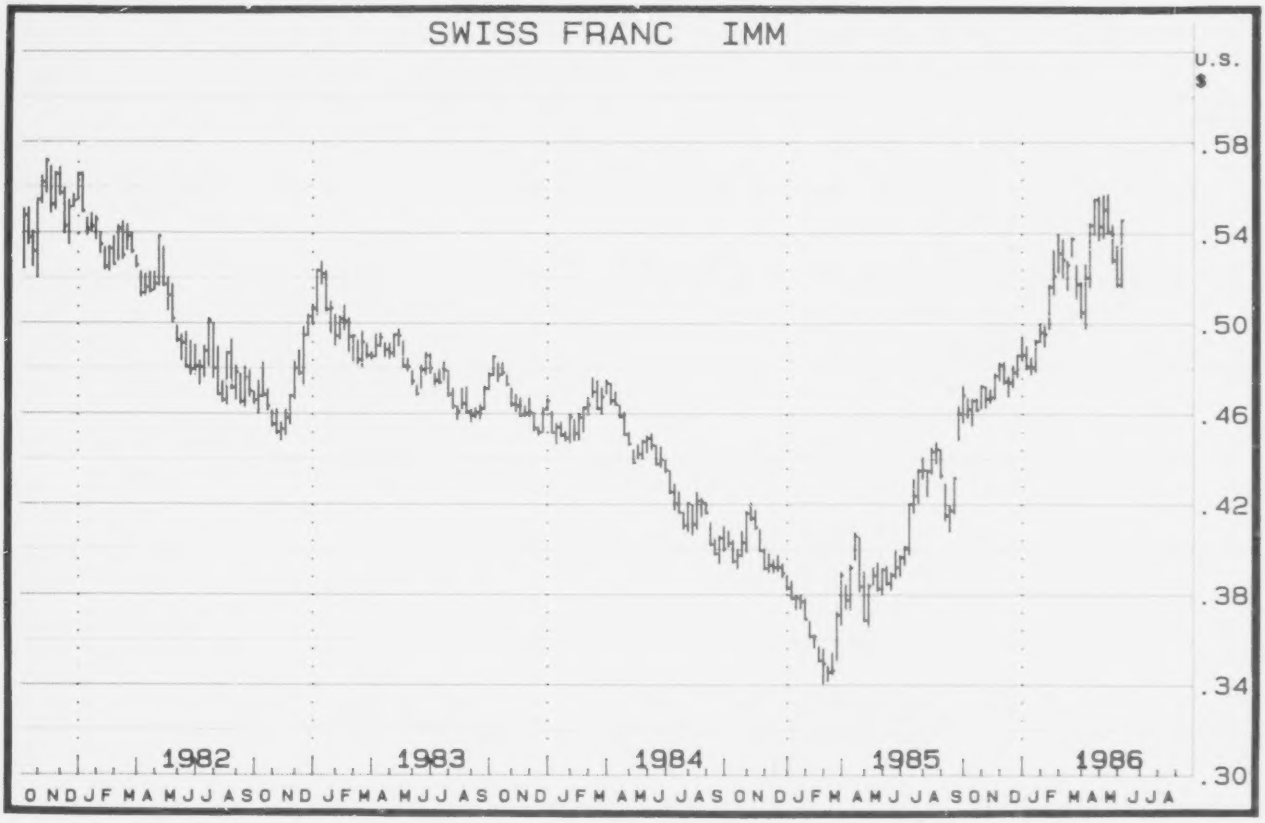
The International Monetary Market (IMM) of the Chicago Mercantile Exchange lists futures contracts in the British pound, Canadian dollar, Deutschemark, Japanese yen, Swiss franc, Dutch guilder, French franc, and Mexican peso.


BRITISH POUND IMM WEEKLY H.L.C.
U.S. $
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
.9
1982
1983
1984
1985
1986
O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A


CANADIAN DOLLAR IMM WEEKLY H.L.C.
U.S. $
.82
.80
.78
.76
.74
.72
.70
.68
.66
1983
1984
1985
1986
S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A


DEUTSCHE MARK IMM
U.S. $
.46
.44
.42
.40
.38
.36
.34
.32
.30
.28
1982
1983
1984
1985
1986
O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A


JAPANESE YEN IMM WEEKLY H.L.C.
U.S. CTS.
.62
.58
.54
.50
.46
.42
.38
.34
1983
1984
1985
1986
M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A



Canadian Dollars per U.S. Dollar

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1982	1.192	1.214	1.220	1.230	1.225	1.275	1.268	1.250	1.234	1.229	1.226	1.238	1.233
1983	1.228	1.227	1.226	1.232	1.228	1.232	1.233	1.233	1.232	1.232	1.237	1.247	1.232
1984	1.248	1.248	1.269	1.279	1.294	1.304	1.323	1.303	1.314	1.318	1.316	1.320	1.295
1985	1.324	1.354	1.383	1.364	1.375	1.367	1.352	1.357	1.369	1.366	1.376	1.395	1.365

Source: Economic Research Service, U.S.D.A. T.0581

German Marks per U.S. Dollar

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1982	2.293	2.365	2.379	2.397	2.308	2.430	2.464	2.477	2.502	2.530	2.555	2.419	2.427
1983	2.389	2.428	2.408	2.439	2.465	2.548	2.590	2.673	2.670	2.601	2.682	2.749	2.553
1984	2.810	2.698	2.596	2.647	2.746	2.738	2.848	2.882	3.028	3.066	2.997	3.102	2.846
1985	3.169	3.300	3.296	3.087	3.103	3.062	2.906	2.792	2.836	2.643	2.594	2.511	2.942

Source: Economic Research Service, U.S.D.A. T.0582

Japanese Yen per U.S. Dollar

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1982	224.7	235.1	240.7	244.9	236.5	251.0	255.1	258.8	262.6	271.3	265.1	241.0	248.8
1983	232.5	236.1	238.0	237.6	234.7	240.0	240.4	244.4	242.9	232.3	234.9	234.3	237.5
1984	233.7	233.5	225.2	225.2	230.4	233.4	243.0	242.0	245.3	246.7	243.5	247.8	237.5
1985	254.1	260.2	257.8	251.5	251.6	248.8	241.1	237.3	236.2	214.6	203.8	202.7	238.3

Source: Economic Research Service, U.S.D.A. T.0583

British Pound Per U.S. Dollar

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1982	.5300	.5410	.5536	.5638	.5521	.5685	.5760	.5791	.5837	.5890	.6119	.6180	.5722
1983	.6341	.6525	.6706	.6505	.6358	.6456	.6539	.6654	.6669	.6675	.6766	.6971	.6592
1984	.7102	.6931	.6864	.7036	.7190	.7257	.7572	.7608	.7954	.8197	.8066	.8428	.7517
1985	.8861	.9141	.8903	.8066	.8001	.7817	.7241	.7226	.7329	.7031	.6946	.6919	.7790

Source: Economic Research Service, U.S.D.A. T.0580

Month End Open Interest of British Pound Futures in Chicago In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1982	11,622	18,839	20,374	17,621	11,478	19,464	12,580	15,022	15,459	15,155	20,083	14,854
1983	20,803	24,311	19,495	24,032	32,900	21,098	22,643	23,505	19,183	18,641	23,105	16,968
1984	20,972	27,563	17,939	20,035	17,876	13,072	15,710	15,105	15,473	18,921	21,701	15,624
1985	22,230	23,911	29,487	31,486	50,437	38,496	46,123	41,685	24,982	28,699	35,562	25,082
1986	38,235	40,880	28,187	39,520								

Source: International Monetary Market (Chicago) T.0584

Month End Open Interest of Canadian Dollar Futures in Chicago In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1982	8,540	11,001	15,770	10,920	16,098	18,895	15,503	17,811	12,434	14,057	17,534	18,033
1983	21,733	15,270	13,594	13,015	11,695	13,608	12,453	10,466	5,764	6,544	6,979	5,131
1984	5,624	5,607	9,572	12,306	10,484	7,684	8,244	8,197	6,397	7,737	10,641	7,775
1985	9,248	12,208	11,132	10,503	12,479	8,145	8,817	9,461	4,771	4,801	8,516	13,929
1986	18,922	15,075	9,748	13,670								

Source: International Monetary Market (Chicago) T.0585

Month End Open Interest of Deutschemark Futures in Chicago In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1982	13,411	12,974	13,824	16,874	13,293	11,917	13,903	14,025	14,600	14,491	22,873	19,792
1983	16,806	16,653	18,195	22,944	25,382	23,269	27,585	23,531	30,077	24,460	23,385	22,804
1984	24,830	38,569	37,871	33,228	34,665	25,166	29,713	34,871	37,068	42,785	44,888	33,746
1985	49,483	45,759	48,190	47,318	52,909	50,400	56,977	54,966	42,696	50,796	57,347	53,525
1986	56,622	70,441	53,054	58,819								

Source: International Monetary Market (Chicago) T.0586

Month End Open Interest of Japanese Yen Futures in Chicago In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1982	11,761	12,880	14,784	18,407	15,405	10,171	18,328	12,289	14,996	13,883	22,627	25,777
1983	26,913	31,388	23,095	31,378	39,661	28,279	32,731	27,510	37,616	36,891	34,976	32,998
1984	28,988	34,456	42,730	30,390	28,035	16,121	18,197	20,172	15,431	21,592	19,828	13,542
1985	13,755	16,206	21,333	17,893	18,251	22,258	37,861	35,896	32,581	37,658	39,605	28,058
1986	31,732	33,792	31,305	38,348								

Source: International Monetary Market (Chicago) T.0587

Month End Open Interest of Swiss Franc Futures in Chicago In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1982	11,493	10,637	14,772	13,318	15,956	12,217	16,935	15,642	15,768	15,793	24,881	25,906
1983	28,628	29,288	22,848	30,877	33,679	26,930	29,997	25,367	31,106	23,808	26,793	21,450
1984	23,067	30,948	25,407	25,118	25,548	18,402	19,093	21,229	18,812	21,485	23,562	17,861
1985	24,406	28,898	22,446	27,144	32,175	27,891	34,160	35,850	25,988	28,190	35,047	27,351
1986	29,412	39,151	28,521	34,855								

Source: International Monetary Market (Chicago) T.0588

CURRENCIES

Index of Trade-Weighted Dollar Exchange Rates for Soybeans—April 1971 = 100

Year		Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1983	Nominal		NOT		141.0	140.9	143.7	145.8	149.1	149.3	148.8	152.3	155.3
	Real		AVAILABLE		85.4	85.9	88.2	90.2	92.2	91.9	89.9	91.7	93.4
1984	Nominal	157.5	155.1	152.9	155.0	162.1	162.4	166.8	168.0	172.6	175.6	175.2	180.6
	Real	94.6	92.1	89.3	90.4	93.2	93.4	96.5	97.4	100.7	101.6	99.6	102.1
1985[1]	Nominal	185.1	191.9	194.5	187.8	190.3	197.3	203.2	201.4	209.7	210.2	229.2	113.8
	Real	103.4	107.4	107.3	101.8	102.4	101.9	98.7	96.5	97.6	92.4	91.6	84.4
1986[1]	Nominal	112	107										
	Real	82	79										

[1] Preliminary. *Nominal* values are percentage changes in currency units per dollar, weighted by proportion of agricultural exports from the United States. An increase indicates that the dollar has appreciated. *Real* values are computed in the same way as the nominal series, adjusted for CPI changes in the countries involved. *Source: Economic Research Service, U.S.D.A.* T.0590

Index of Trade-Weighted Dollar Exchange Rates for Wheat—April 1971 = 100

Year		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1983	Nominal		NOT		1,003	1,085	1,158	1,290	1,444	1,553	1,713	1,843	1,973
	Real		AVAILABLE		96.9	97.3	98.2	100.0	103.6	102.5	101.5	102.2	102.2
1984	Nominal	2,126	2,334	2,588	2,803	3,018	3,305	3,645	3,958	4,395	4,612	5,378	5,865
	Real	102.7	102.2	101.1	102.3	103.5	104.1	104.4	104.5	105.5	105.2	106.4	106.9
1985[1]	Nominal	6,598	7,285	7,988	9,093	996.1	11,012	11,996	13,008	14,116	15,607	17,029	18,368
	Real	108.9	109.6	108.8	109.0	110.1	111.5	110.6	110.0	110.8	109.0	108.9	103.8
1986[1]	Nominal	20,580	23,117										
	Real	104	103										

[1] Preliminary. *Nominal* values are percentage changes in currency units per dollar, weighted by proportion of agricultural exports from the United States. An increase indicates that the dollar has appreciated. *Real* values are computed in the same way as the nominal series, adjusted for CPI changes in the countries involved. *Source: Economic Research Service, U.S.D.A.* T.0590A

Index of Trade-Weighted Dollar Exchange Rates for Corn—April 1971 = 100

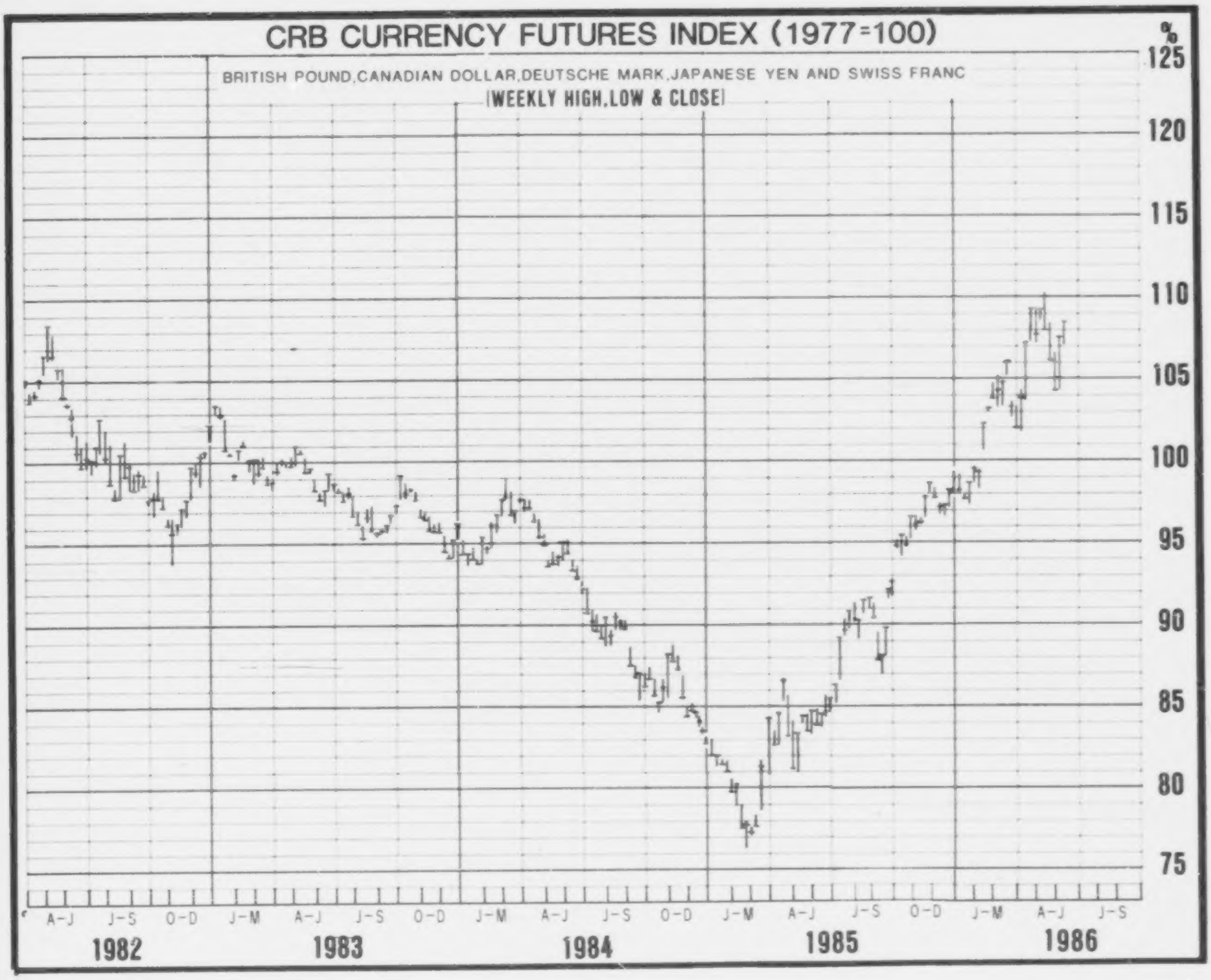
Year		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1983	Nominal		NOT		308.8	320.9	333.0	354.5	382.1	400.4	424.5	448.3	471.1
	Real		AVAILABLE		89.0	89.2	91.4	94.0	95.9	95.5	93.7	95.3	96.6
1984	Nominal	497.1	526.7	563.2	598.6	640.6	684.1	740.4	789.2	860.0	897.8	1,013	1,093
	Real	97.7	95.4	92.7	93.6	96.5	96.5	99.4	100.3	103.2	104.1	102.5	104.7
1985[1]	Nominal	1,212	1,326	1,438	1,599	1,740	1,905	2,067	2,227	2,403	2,627	2,865	2,903
	Real	106.1	109.4	109.4	104.4	105.2	104.7	102.3	100.3	101.5	97.0	96.8	86.9
1986[1]	Nominal	3,227	3,522										
	Real	85	81										

[1] Preliminary. *Nominal* values are percentage changes in currency units per dollar, weighted by proportion of agricultural exports from the United States. An increase indicates that the dollar has appreciated. *Real* values are computed in the same way as the nominal series, adjusted for CPI changes in the countries involved. *Source: Economic Research Service, U.S.D.A.* T.0591

Index of Trade-Weighted Dollar Exchange Rates for Cotton—April 1971 = 100

Year		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1983	Nominal		NOT		155.5	155.7	155.9	157.0	158.9	159.9	163.4	180.2	181.4
	Real		AVAILABLE		89.0	88.9	89.9	90.9	91.9	91.7	91.6	92.6	93.3
1984	Nominal	182.5	181.4	180.4	184.0	185.8	187.2	190.3	191.1	195.5	197.0	197.6	207.0
	Real	93.6	92.8	91.6	92.1	93.3	94.2	95.6	96.1	97.0	97.8	98.0	99.1
1985[1]	Nominal	209.3	211.5	212.9	211.3	212.8	212.8	213.3	213.0	215.1	212.8	214.8	216.4
	Real	100.0	101.6	102.3	101.0	101.7	101.1	99.9	99.8	100.6	98.4	97.5	97.3
1986[1]	Nominal	216	214										
	Real	97	95										

[1] Preliminary. *Nominal* values are percentage changes in currency units per dollar, weighted by proportion of agricultural exports from the United States. An increase indicates that the dollar has appreciated. *Real* values are computed in the same way as the nominal series, adjusted for CPI changes in the countries involved. *Source: Economic Research Service, U.S.D.A.* T.0591A



CRB CURRENCY FUTURES INDEX (1977=100)

BRITISH POUND, CANADIAN DOLLAR, DEUTSCHE MARK, JAPANESE YEN AND SWISS FRANC

(WEEKLY HIGH, LOW & CLOSE)

Index of Trade-Weighted Dollar Exchange Rates for Total Agriculture—April 1971 = 100

Year		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1983	Nominal		NOT		304.6	318.0	329.2	354.4	384.1	403.2	429.8	454.4	478.4
	Real		AVAILABLE		91.2	91.4	93.0	94.9	97.2	96.5	95.0	96.2	97.3
1984	Nominal	505.7	538.8	580.4	618.9	661.8	710.1	770.3	823.2	899.3	938.9	1,067	1,152
	Real	97.2	96.5	94.4	95.6	97.8	98.0	100.2	100.6	102.9	103.5	102.5	104.2
1985[1]	Nominal	1,282	1,404	1,526	1,707	1,861	2,042	2,217	2,392	2,583	2,830	3,083	3,183
	Real	106.1	108.5	108.3	104.6	105.2	105.5	103.3	101.9	103.1	99.3	99.1	91.6
1986[1]	Nominal	3,544	3,884										
	Real	90	88										

[1] Preliminary. *Nominal* values are percentage changes in currency units per dollar, weighted by proportion of agricultural exports from the United States. An increase indicates that the dollar has appreciated. *Real* values are computed in the same way as the nominal series, adjusted for CPI changes in the countries involved. *Source: Economic Research Service, U.S.D.A.* T.0589

Distilled Spirits

Salient Statistics of Distilled Spirits in the United States   In Thousands of Gallons[1]

	Whiskey			Total Distilled Spirits			
Year	Production	Imports For Consumption	Stocks End of Period	Production	Imports For Consumption	Stocks End of Period	Apparent Consumption[3]
1976	79,120	92,070	692,340	160,420	112,710	752,850	426,390
1977	80,060	91,150	649,000	159,310	112,940	706,870	431,550
1978	79,150	101,890	600,620	166,610	128,600	662,510	443,460
1979	101,260	95,400	581,160	186,680	123,650	645,670	447,520
1980	84,310	86,000	554,880	140,530	113,710	623,260	449,420
1981	96,680	86,530	541,070	152,030	117,930	613,780	449,450
1982	91,250	76,600	533,390	138,080	106,030	604,670	437,660
1983	73,590	83,840	507,760	100,490	116,350	578,950	431,130
1984[2]	80,290	78,040	482,130	124,190	117,860	554,640	426,160
1985[2]		79,680	463,680		115,780	535,560	

[1] Production, withdrawals, and stocks are tax gallons; imports are proof gallons; consumption are wine gallons. [2] Preliminary. [3] For beverage purposes. *Sources: Internal Revenue Service; Department of Commerce* T.207

Grains Used in Production of Alcohol, Dist. Spirits, & Ferm. Malt Liquors in U.S.   In Thousands of Bushels

	Corn and Products			Barley and Malt			Wheat				
Year Begin. July 1	Alcohol & Distilled Spirits	Fermented Malt Liquors[3] (Beer)	Total	Alcohol & Distilled Spirits	Fermented Malt Liquors (Beer)	Total	Alcohol & Distilled Spirits	Fermented Malt Liquors	Total	Rye[2]	Sorghum Grain (Alcohol & Dist. Spirits)
1970–1	24,030	45,250	69,280	4,977	108,127	113,104				3,435	3,716
1971–2	24,848	45,462	70,310	4,430	113,008	117,438				3,066	4,750
1972–3	29,498	45,239	74,737	4,094	115,592	119,686					2,025
1973–4	33,095	47,157	80,252	3,763	120,971	124,734					2,562
1974–5	15,434	49,012	64,446	2,116	124,355	126,471					3,139
1975–6	20,983	50,612	71,595	2,693	122,779	125,472					2,873
1976–7	20,702	53,390	74,092	2,813	129,171	131,984					2,730
1977–8	18,891	51,584	70,475	2,782	129,908	132,690					3,619
1978–9	23,404	46,539	69,943	3,414	144,348	147,662					4,186
1979–80	25,620	46,713	72,333	3,330	147,570	150,900					4,594
1980–1	26,234	47,070	73,304	2,991	152,393	155,384					4,284
1981–2	39,255	43,480	82,735	3,320	147,781	151,101					4,767
1982–3	66,734	42,311	109,045	3,277	142,167	145,444					3,769
1983–4[1]	43,057	41,936	84,993	2,300	140,160	142,460					3,711
1984–5[4]	50,000	40,000	90,000	1,960	140,038	141,998					6,000

[1] Preliminary. [2] Used principally for distilled spirits. [3] Principally corn grits & flakes. [4] Estimate. *Source: Internal Revenue Service* T.209

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Commodity Research Bureau
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Eggs

Total egg production increased in the first quarter of 1985 as the number of layers rose above levels in the previous year, and output declined in the remaining quarters as layer numbers dipped below year-ago. The annual average number of layers on farms for marketing year 1985 totaled 276.7 million, down slightly from 1984's average of 278 million. Eggs per layer in 1985 totaled 247, up 2 eggs from 1984. The higher rate of lay in 1985 and slight reduction in number of layers resulted in a marginal decline in total egg production in 1985. Output was placed at 5.69 billion dozen in 1985, compared to 5.7 billion dozen eggs produced in 1984.

Egg production in the first quarter of 1986 was expected to be down nearly 1 percent from the 1.43 billion dozen produced in the first quarter of 1985, according to the USDA. Although the increase in the egg-type hatch in September and October, 1985, would mean additional pullets in the laying flock starting in March, 1986, producers would have an old flock producing eggs in January and February. On January 1, 1986, the number of egg-type hens was 3 percent below last year, and 29 percent of these hens had been force molted, compared to 18 percent in 1985. Thus, with older and fewer hens, first quarter production was expected to be down slightly.

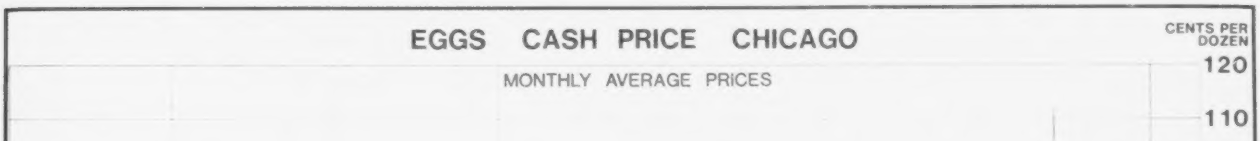
The additional pullets hatched late in 1985 will allow replacement of many of the older hens and will help push production in the second quarter to 1985's level of 1.4 billion dozen—or possibly higher. For the first half of 1986, consequently, USDA expected egg production to be about the same as 1985.

Egg-type chick hatch continued to rise in late 1985 and into early 1986. Egg-type chick hatch increased 10 percent above year-ago levels in November and 23 percent above 1984 in December. In January, 1986, hatch rose 13 percent from year-ago levels. With more pullets being added to the layer flocks, egg production in the second half of 1986 was expected to be possibly 1 percent above last year.

California remained the top egg producing state in 1985, followed by Indiana, Pennsylvania, Georgia and Arkansas. Pennsylvania production rebounded from the Avian-influenza losses suffered in 1984.

During the fourth quarter of 1985, cartoned Grade A large eggs in New York averaged 76 cents per dozen, up from 67 cents in fourth-quarter 1984. Prices started 1985 sharply below the high first-quarter prices in 1984, which had spurred large pullet placements in second-half 1984 and early 1985. The average New York price for 1985 was 66.4 cents per dozen, down from 80.9 cents in 1984.

In January, 1986, prices dropped slightly from the fourth-quarter 1985 average to 73 cents. USDA expected prices to average 70 to 73 cents in the first quarter, up from 1985's 62 cents. Prices were expected to decline to around 63 to 67 cents in the second quarter as supplies increase, compared to 60 cents in 1985. With supplies expected to grow in the second half of 1986, prices were anticipated to average below those in second-half 1985.



EGGS

World Production[2] of Eggs In Billions of Eggs

Year	Argentina	Australia	Bel. & Lux.	Brazil	Canada	Israel	France	W. Germany	Italy	Japan	Netherlands	Poland	Spain	South Africa	USSR	Un. Kingdom[3]	United States
1977	3.1	3.3	3.8	6.3	5.5	1.7	13.1	14.8	11.3	31.4	6.0	8.5	10.9	3.9	61.2	14.1	64.9
1978	3.3	3.5	3.8	6.6	5.5	1.8	13.5	14.3	11.0	32.8	7.0	8.5	10.1	3.9	64.5	14.3	67.3
1979	3.4	3.4	3.5	7.2	5.6	1.8	13.8	13.3	11.0	33.2	8.2	8.7	11.0	3.1	65.6	15.0	69.2
1980	3.4	3.4	3.3	9.6	5.9	1.6	14.5	13.7	10.7	33.4	9.0	8.9	11.7	2.4	70.9	14.0	69.7
1981	3.3	3.6	3.3	10.2	5.9	1.4	15.2	13.2	11.4	33.3	9.8	8.8	11.8	2.6	70.9	13.7	69.9
1982	3.2	3.4	3.3	10.2	5.9	1.8	15.9	13.1	11.2	34.3	10.7	7.6	12.4	3.1	72.4	13.5	69.6
1983	3.3	3.5	3.2	9.0	6.1	1.8	15.0	13.0	10.9	34.8	10.7	7.6	12.2	3.2	75.1	13.2	67.9
1984[1]	3.2	3.5	3.1	8.5	5.9	2.1	14.9	13.1	10.8	35.5	11.1	8.2	10.1	3.2	76.5	13.0	68.5
1985[4]	3.2	3.3	3.0	9.0	5.8	2.2	14.9	13.2	11.0	35.9	11.1	8.5	10.2	3.2	77.0	12.9	68.2

[1] Preliminary. [2] Relates to farm production in Canada and the United States. Information for many countries is not explicit on this point. [3] Farm production, years ending May. [4] Forecast. *Source: Foreign Agricultural Service, U.S.D.A.* T.210

Salient Egg Statistics in the United States

Year	Hens & Pullets: On Farms Dec. 1[2] (Millions)	Hens & Pullets: Avg.[9] Number During Year (Millions)	Rate of Lay Per Layer During Year[3] Number	Eggs: Farm Prod. (Billions)	Eggs: Price Per Dz.	Eggs: Consumed[4] on Farms (Billions)	Eggs: Sold (Billions)	Gross Income[5] Billion $	Total Egg Prod.[6] (Million Dozen)	Imports[7] (Million Dozen)	Exports[8] & Shipments (Million Dozen)	Used for Hatching (Million Dozen)	Civilian Consumption: Total (Million Dozen)	Civilian Consumption: Per Capita Eggs
1977	286.7	274.9	235	64.6	55.6	.48	64.13	2.99	5,408	14	91	427	4,865	268
1978	293.3	281.5	239	67.1	52.2	.46	66.68	2.92	5,608	11	120	466	5,009	273
1979	294.9	288.6	240	69.2	58.3	.45	68.76	3.36	5,777	10	104	498	5,162	278
1980	294.1	287.7	242	69.7	56.3	.45	69.23	3.27	5,806	5	167	499	5,122	272.4
1981	293.8	287.7	243	69.8	63.1	.44	69.38	3.67	5,825	5	257	507	5,043	265.5
1982	289.6	286.3	243	69.7	59.5	.43	69.27	3.46	5,802	3	185	506	5,071	265.3
1983	278.5	276.1	247	68.2	61.1	.42	67.75	3.47	5,659	23	112	500	5,056	261.2
1984[1]	285.8	278.0	245	68.2	72.3	.39	67.80	4.11	5,708	32	86	530	5,105	260.9
1985[1]	279.8	276.7	247	68.4	49.9	.40	67.90	3.41	5,687	13	101	548	5,031	254.6

[1] Preliminary. [2] Of laying age. [3] Number of eggs produced during the year divided by the average number of hens & pullets of laying age on hand during the year. [4] Consumed in households of farm producers. [5] Value of sales plus value of eggs consumed in households of producers. [6] Farm production, plus nonfarm output estimated at 10% of farm through 1954; thereafter, 1 percentage point less each year. [7] Shell-egg equivalent of eggs and egg products. [8] Shell eggs & shell equivalent of frozen & dried egg products. [9] Average number of layers on farms during the year. *Source: Agricultural Marketing Service, U.S.D.A.* T.211

Average Wholesale Prices of Shell Eggs (Large) Delivered, Chicago In Cents Per Dozen

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1978	55.2	62.8	62.0	57.0	52.0	49.3	61.2	61.8	63.2	60.8	67.2	71.6	60.3
1979	71.3	67.7	73.5	68.7	61.9	64.8	61.9	64.0	62.0	59.7	66.3	72.4	66.2
1980	59.9	56.3	60.6	56.8	50.8	54.6	63.2	65.9	68.8	64.3	75.7	77.3	62.8
1981	71.4	67.2	66.6	69.7	62.2	62.9	67.5	68.7	70.7	71.3	77.3	72.1	69.0
1982	76.2	74.2	75.2	68.3	60.4	60.8	61.7	61.6	65.9	66.8	66.2	64.1	66.8
1983	60.2	62.7	66.2	64.9	68.4	68.0	66.2	74.4	76.2	77.9	88.4	98.6	72.7
1984	112.3	102.6	88.3	101.8	74.3	68.1	69.0	66.5	67.2	60.7	70.4	62.2	78.6
1985[1]	58.4	55.1	62.3	57.3	52.9	60.8	58.6	66.4	70.5	70.7	74.6	73.2	63.4
1986[1]	70.6												

[1] Preliminary. *Source: Commodity Economics Division, U.S.D.A.* T.212

Total Egg Production in the United States In Millions of Eggs

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total[2]
1978	5,743	5,106	5,700	5,559	5,723	5,460	5,541	5,574	5,495	5,751	5,685	5,948	67,157
1979	5,892	5,290	5,909	5,721	5,862	5,648	5,798	5,810	5,653	5,881	5,797	6,064	69,209
1980	6,047	5,595	5,956	5,715	5,798	5,582	5,708	5,753	5,725	5,948	5,795	6,054	69,686
1981	6,020	5,421	6,009	5,761	5,855	5,608	5,799	5,835	5,685	5,919	5,859	6,079	69,825
1982	5,958	5,333	17,557			17,231			17,419			6,030	69,718
1983	5,931	5,354	5,928	5,622	5,711	5,526	5,666	5,639	5,493	5,699	5,570	5,772	68,169
1984	5,685	5,326	5,796	5,643	5,742	5,525	5,750	5,766	5,622	5,856	5,747	6,040	68,230
1985[1]	5,950	5,293	5,923	5,670	5,721	5,499	5,061	5,686	5,585	5,761	5,658	5,878	68,407
1986[1]	5,855	5,295											

[1] Preliminary. [2] Dec. 1 previous year thru Nov. 30. *Source: Crop Reporting Board, U.S.D.A.* T.219

Total Eggs—U.S. Supply and Distribution In Millions of Dozen

	Supply				Utilization					
							Domestic Disappearance			
									Civilian[1]	
Year & Quarters	Production	Imports[1]	Beginning Stocks[1]	Total Supply	Ending Stocks[1]	Exports & Shipments[1]	Eggs Used for Hatching	Military	Total	Per Capita (Number)
1981 I	1,454	.6	19.4	1,456	17.9	60.5	131.2	5.5	1,259	66.5
II	1,435	1.8	17.9	1,435	19.6	62.3	131.7	6.6	1,235	65.1
III	1,443	1.8	19.6	1,445	19.9	65.6	121.3	6.1	1,252	65.8
IV	1,492	.4	19.9	1,495	17.5	68.3	122.5	6.9	1,297	68.0
1982 I	1,444	.5	17.5	1,447	14.4	53.1	128.4	5.9	1,260	65.9
II	1,441	.3	14.4	1,437	18.2	36.9	132.4	4.8	1,263	65.9
III	1,436	1.6	18.2	1,434	22.3	37.6	120.4	6.4	1.270	66.1
IV	1,480	.1	22.3	1,483	20.3	57.3	124.5	5.3	1,296	67.3
1983 I	1,434	5.0	20.3	1,442	18.1	30.2	128.4	6.3	1,277	66.2
II	1,405	2.9	18.1	1,409	17.4	29.2	129.2	6.9	1,243	64.3
III	1,400	7.4	17.4	1,411	13.2	26.7	120.1	6.5	1,258	64.9
IV	1,420	8.2	13.2	1,432	9.3	26.4	122.4	5.4	1,278	65.8
1984 I	1,401	13.9	9.3	1,414	10.2	17.5	133.0	4.2	1,259	64.6
II	1,409	7.6	10.2	1,413	13.7	15.3	138.0	5.3	1,255	64.2
III	1,428	7.2	13.7	1,436	13.4	26.7	128.4	3.7	1,277	65.2
IV	1,470	3.4	13.4	1,476	11.1	26.5	130.2	4.4	1,315	66.9
1985[3] I	1,431	2.2	11.1	1,433	11.0	24.5	136.1	5.1	1,267	64.4
II	1,408	3.3	11.0	1,410	11.9	24.5	139.6	5.6	1,240	62.8
III	1,408	2.3	11.9	1,409	13.1	25.0	133.7	4.5	1,246	63.0
IV	1,441	4.9	13.1	1,449	10.7	27.0	138.7	5.0	1,278	64.4
1986 I										

[1] Shell eggs & the approx. shell-egg equivalent of egg product. [2] Less than 100,000 dozen. [3] Forecast.
Source: Commodity Economics Division, U.S.D.A. T 213

Shell Eggs: Civilian Per Capita Disappearance in the United States Number of Eggs

	Shell Equivalent														
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total[1]	Processed[2]	Total
1976	21.7	19.6	20.5	19.6	20.5	19.2	20.1	20.1	19.3	20.3	19.5	20.8	241	33	274
1977	20.9	17.9	20.1	19.2	19.4	18.1	19.1	19.1	19.0	20.7	20.2	21.4	235	37	272
1978	21.1	18.6	20.8	20.0	20.3	18.8	19.7	19.8	19.7	20.9	20.7	21.9	242	36	278
1979	21.3	18.5	21.0	20.0	20.1	19.2	20.1	19.9	19.8	20.2	20.2	21.8	242	36	278
1980	21.1	19.0	20.9	19.4	19.8	18.7	19.0	19.6	19.4	19.8	20.0	20.7	237.3	35	272
1981	58.5			56.7			57.3			60.7			233.1	33	265
1982	58.6			57.0			56.5			59.1			231.2	34	265
1983	57.8			55.5			55.0			57.6			225.9	35	261
1984	55.7			54.8			55.2			57.7			223.4	38	261
1985[3]	55.6			52.4			52.8			54.9			215.7	39	255

[1] Monthly totals do not necessarily add to yearly figures due to rounding. [2] Liquid, frozen, & dried egg (egg solids) converted to shell egg equivalent. [3] Preliminary. *Source: Economic Research Service, U.S.D.A.* T 214

Egg-Feed Ratio[1] in the United States

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1976	8.6	8.2	7.4	7.3	7.5	6.8	6.8	7.6	7.7	7.8	8.7	9.1	7.9
1977	8.5	8.1	7.3	6.8	5.9	5.8	6.7	7.2	7.6	7.1	7.3	7.4	7.1
1978	6.7	7.5	7.4	6.7	6.3	5.6	6.4	7.0	7.3	7.0	7.5	8.0	7.0
1979	7.8	7.7	8.0	7.4	6.9	6.7	6.1	6.1	6.4	6.1	6.8	7.3	6.9
1980	6.6	6.0	6.4	6.0	5.4	5.6	5.7	6.0	6.2	5.7	6.0	6.6	6.0
1981	5.9	5.7	5.6	5.9	5.2	5.2	5.5	5.8	6.4	6.5	7.2	6.7	6.0
1982	6.6	6.8	7.1	6.6	5.6	5.3	5.7	5.4	6.0	6.3	6.3	6.0	6.2
1983	5.7	5.8	6.1	5.8	6.0	5.8	5.7	6.1	6.0	6.2	6.9	7.7	6.0
1984[2]	8.8	8.5	7.4	8.6	6.5	5.8	5.8	5.8	5.9	5.7	6.5	6.2	6.9
1985[2]	5.5	5.6	6.2	5.7	5.5	5.8	5.8	6.5	7.0	7.3	7.4	7.4	6.3
1986[2]	7.2	6.9											

[1] Pounds of laying feed equivalent in value to one dozen eggs. [2] Preliminary. *Source: Commodity Economics Division, U.S.D.A.* T 215

EGGS

Hens and Pullets of Laying Age in the U.S., First of Month In Millions

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1979	291.7	292.1	290.2	288.6	285.5	283.4	283.7	285.1	287.2	290.2	291.7	294.9
1980	296.0	293.1	288.7	285.3	280.8	279.5	279.9	282.2	287.9	291.7	292.8	294.1
1981	295.2	292.4	291.3	286.3	284.5	282.5	280.9	284.5	283.8	287.2	290.5	293.8
1982	291.7	290.1	288.4	—	—	282.7	—	—	281.9	—	—	289.6
1983	285.8	283.3	280.5	276.9	273.0	271.8	270.1	269.7	271.5	272.2	276.4	278.5
1984[1]	277.2	276.5	277.0	278.9	276.1	276.2	276.5	274.3	277.8	280.5	282.2	285.8
1985[1]	286.9	281.7	279.0	276.1	272.5	269.1	269.8	271.3	273.8	276.2	280.7	279.8
1986[1]	280.9	280.4	279.8									

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.216

Eggs Laid Per Hundred Layers in the United States In Number of Eggs

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1979	2,018	1,817	2,042	1,994	2,062	1,992	2,038	2,030	1,958	2,021	1,976	2,052	
1980	2,053	1,923	2,075	2,019	2,070	1,996	2,031	2,018	1,976	2,035	1,975	2,054	2,422
1981	2,049	1,857	2,081	2,018	2,065	1,991	2,051	2,053	1,991	2,049	2,005	2,083	2,426
1982	2,048	1,850		6,159			6,112			6,105		2,097	2,435
1983	2,084	1,899	2,127	2,045	2,096	2,039	2,099	2,084	2,021	2,078	2,008	2,078	2,468
1984	2,054	1,925	2,085	2,032	2,079	1,999	2,086	2,088	2,013	2,080	2,023	2,109	2,046
1985[1]	2,093	1,887	2,134	2,066	2,112	2,041	2,093	2,086	2,017	2,069	2,018	2,097	2,059
1986[1]	2,086	1,890											

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.221

Egg-Type Chicks Hatched by Commercial Hatcheries in the United States In Millions

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	39.9	39.5	50.1	52.4	55.9	47.8	42.8	41.9	36.6	39.5	37.5	36.4	519.0
1980	38.1	42.1	46.5	47.9	47.6	42.3	37.9	38.0	37.4	37.3	33.8	35.8	484.6
1981	37.8	36.1	44.5	48.3	46.1	40.5	32.3	33.8	32.3	35.9	33.7	33.1	454.2
1982	36.7	36.4	44.2	46.6	47.3	39.4	35.4	33.5	31.2	32.3	30.2	31.1	444.4
1983	32.6	33.0	39.3	36.7	38.3	37.5	30.5	30.9	31.8	32.3	29.6	34.4	406.9
1984	36.9	37.5	45.7	47.9	49.0	46.5	38.4	34.8	33.1	31.4	30.1	27.1	458.5
1985[1]	28.3	28.4	36.9	40.9	39.0	33.8	32.1	32.5	33.6	33.6	33.6	34.6	407.3
1986[1]	34.4	34.7											

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.220

U.S. Cold Storage Holdings of Shell Eggs, 1st of Month In Thousands of Cases (One Case = 30 Dozen)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1979	38	22	18	24	20	27	24	32	28	31	24	24
1980	38	47	24	22	30	47	51	39	28	39	15	19
1981	31	28	18	31	31	25	41	39	20	19	21	38
1982	35	28	19	39	—	—	32	—	—	29	—	—
1983	34	35	25	18	23	32	44	24	25	25	45	18
1984	13	28	17	36	35	41	42	29	31	23	37	35
1985[1]	31	30	29	23	26	30	21	30	20	22	23	28
1986[1]	24	28	22									

[1] Preliminary. *Source: Crop Reporting, Board U.S.D.A.* T.217

U.S. Cold Storage Holdings of Frozen Eggs, 1st of Month In Millions of Pounds[1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1979	25.3	25.5	24.5	21.1	21.7	21.6	22.8	25.9	24.7	24.1	25.6	23.4
1980	23.4	22.1	23.8	23.4	25.9	26.6	28.6	29.4	30.7	29.7	29.2	25.3
1981	24.3	24.3	24.2	22.3	21.9	22.7	24.2	26.9	27.2	25.5	25.6	23.7
1982	21.6	21.2	19.4	17.4	—	—	22.7	—	—	28.3	—	—
1983	25.4	25.5	25.7	23.1	22.5	21.2	21.1	20.4	19.0	16.4	14.2	13.4
1984	11.8	11.0	11.4	12.0	12.7	12.8	16.4	17.5	16.6	16.7	17.9	16.2
1985[2]	13.4	14.9	13.9	13.5	13.2	15.1	14.8	18.0	18.4	16.4	15.1	13.8
1986[2]	13.2	12.7	12.5									

[1] Converted on basis 39.5 pounds frozen eggs equals 1 case. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.218

Electric Power

Nearly 2.5 trillion kilowatt hours of electric power were generated in the United States during 1985, up more than 2 percent from 1984. Roughly three-fifths (56.7 percent) of total output was produced from coal, about one-sixth (15.6 percent) from nuclear energy, about one-ninth (11.8 percent) from natural gas, another one-ninth (11.4 percent) from hydroelectric plants, and 4 percent from petroleum. The trivial remainder was generated from a variety of sources, including the sun, geothermal springs, wood and waste.

To produce the power, vast amounts of primary energy were consumed, including approximately 700 million short tons of coal, most of it bituminous; over 173 million barrels of liquid petroleum; more than 3 trillion cubic feet of natural gas; and 231,000 tons of petroleum coke. Compared with 1984, usage of coal rose 4.2 percent, but usage of all the others fell—natural gas by 2.6 percent; petroleum liquid, 15.2 percent; and petroleum coke 8.3 percent. The decline in usage of petroleum continued a trend that started in 1979.

Virtually all of what was produced was sold to electricity's consumers. Sales in 1985 were about 15 percent greater than the year before. Nearly 36 percent were purchased by industrial users, 34 percent by householders, and 26 percent by commercial consumers. The remaining 4 percent or so were bought by governments, railways, and street-lighting authorities. Sales in 1985 to residential consumers were up 1.7 percent from 1984, commercial sales were up 5.1 percent, and industrial sales increased 1.7 percent.

Although nuclear-power plants have been in disfavor in the U.S. for several years, their operable generating capacity in 1985 amounted to 78.1 million kilowatt hours, a figure some 12 percent higher than at the end of 1984. During the year, 9 nuclear-generating units were awarded full-power licenses by the Nuclear Regulatory Commission and one more received a low-power license. Eight units were declared commercially operable during the year and one project was cancelled. There were no new orders for nuclear-generating units. By contrast, in the world as a whole, but excluding Communist countries, nuclear-power generating increased 19.1 percent over the year earlier and 25 additional nuclear-generating units became operable, raising the total to 303. The generating capacity of those units amounted to an aggregate of 230.7 million kilowatts, nearly 14 percent higher than at the end of 1984.

Barring a sharp and unexpected downturn in general economic activity in 1986, continued growth in production and consumption of electric power is projected, and at about the same rate as in 1985. Other extrapolations are more uncertain as to accuracy. It is far from clear, for instance, to what degree petroleum will be substituted for coal and natural gas, a substitution encouraged by the decisive slide in crude-oil prices that began in November 1985. Also very uncertain is the number, if any, of nuclear-power plants that will come on stream in 1986. Falling fuel costs are expected by many observers to halt the secular rise in electricity rates, and may induce selective rate reductions, particularly to large industrial consumers of power.

World Electricity Production In Billions of KWH

Year	Australia	Brazil	Canada	Czechoslov.	France	W. Germany	Italy	Japan	Norway	Poland	Sweden	Switzerland	South Africa	Un. Kingdom	United States	USSR
1978	86.2	112.5	345.2	69.1	226.7	353.4	175.0	564.0	81.0	115.6	90.3	42.3	84.5	287.7	2,286	1,200
1979	92.1	126.5	363.2	68.1	241.1	374.2	180.5	589.6	89.1	117.5	92.4	42.7	90.3	299.9	2,319	1,238
1980	96.3	139.5	377.5	72.6	243.3	368.8	185.7	577.5	84.1	121.9	93.4	46.6	95.0	284.9	2,354	1,295
1981	102.5	142.2	390.9	74.1	260.8	368.0	181.8	583.2	92.8	115.0	100.0	48.0	97.4	277.7	2,359	1,325
1982	104.9	152.0	387.5	74.7	262.2	366.9	183.7	581.1	91.9	117.6	96.6	50.8	119.9	272.1	2,302	1,367
1983	109.2	162.0	408.4	76.0	297.2	371.8	180.7	555.5	104.7	125.9	105.9	50.8	108.3	276.2	2,368	1,396
1984[1]	115.8		424.8	78.3	302.5	394.3	180.3	580.4	106.6	135.3	119.6	47.7		282.4	2,416	1,493
1985[3]	120.0		430.0	80.0	305.0	400.0	185.0	585.0	108.0	133.0	114.0	50.0		285.0	2,500	1,505

[1] Preliminary. [2] Estimate. *Source: United Nations*

T.222

Installed Capacity, Capability & Peak Load of the U.S. Electric Utility Industry In Millions of Kilowatts

	Installed Generating Capacity at Dec. 31																
		Type of Prime Mover				Type of Ownership											
Year	Total Electric Utility Industry	Hydro	Gas Turbine & Steam	Nuclear Power	Internal Combustion	Investor Owned	Cooperatives	Sub-Total Gov't.	Municipal Utilities	Federal	Power Districts, State Projects	Capability at Winter Peak Load	Non-Coincident Winter Peak Load	Margin of Reserve (%)	Generation	Peak Load Factor (%)
1978	579.3	71.0	449.2	53.5	5.5	453.6	11.6	114.0	34.4	54.3	25.3	561.6	383.1	33.7	2,219	62.1
1979	598.4	75.4	463.0	54.6	5.5	464.1	13.8	120.5	34.5	58.3	27.6	554.3	368.9	36.9[2]	2,247	64.4
1980	613.7	76.4	475.3	56.5	5.6	477.1	15.4	121.2	34.6	59.1	27.5	572.2	384.6	23.5	2,293	61.1
1981	635.0	77.2	491.3	60.8	5.6	490.8	18.4	125.7	35.1	61.0	29.5	581.1	391.1	25.2	2,311	61.6
1982	650.1	78.1	503.8	63.0	5.1	499.1	21.5	129.5	35.8	62.5	31.2	596.9	373.3	29.2	2,241	62.1
1983	658.2	79.0	507.1	67.1	5.0	505.5	22.2	130.5	36.6	63.0	30.9	611.6	410.8	25.0	2,310	59.5
1984[1]	672.5	80.6	516.5	70.5	4.8	514.9	24.7	132.9	36.7	63.3	32.8	616.6	436.3	25.3	2,416	59.7

[1] Preliminary. [2] New series starting 1980. *Source: Federal Power Commission*

T.223

ELECTRIC POWER

Available Electricity & Energy Sales in the United States In Billions of Kilowatt Hours

	Generation						Sales to Ultimate Customers								
	Electric Utility Industry														
Year	Hydro	Steam	Nuclear	Total[5]	Other Sources[2]	Total	Total Million $	Total[4]	Residential	Inter-Departmental	Commercial	Industrial	Street & Highway	Other Public Authorities	Railways & Railroads
1972	272.6	1,416	54.1	1,750	105	1,854	27,921	1,578	511.4	5.1	361.9	639.5	12.2	43.2	4.4
1973	272.1	1,495	83.3	1,856	103	1,959	31,663	1,703	554.2	5.5	396.9	687.2	12.8	42.3	4.2
1974	301.0	1,446	113.7	1,866	102	1,968	39,127	1,701	555.0	5.4	392.7	689.4	13.3	40.7	4.3
1975	300.0	1,439	172.5	1,918	85	2,003	46,855	1,733	586.1	5.4	418.1	661.6	13.9	43.6	4.3
1976	283.7	1,558	191.1	2,038	87	2,125	53,463	1,850	613.1	6.4	440.6	725.2	14.4	45.6	4.3
1977	220.5	1,648	250.9	2,124	88	2,212	62,610	1,951	652.3	7.2	469.2	757.2	14.4	46.2	4.2
1978	280.4	1,645	276.4	2,206	79	2,300	69,853	2,018	679.2	7.1	480.7	782.1	14.8	49.5	4.3
1979	279.8	1,708	255.2	2,247	71	2,318	79,640	2,084	696.0	7.4	494.7	817.6	14.8	49.6	4.3
1980	276.0	1,756	251.1	2,283	68	2,351	95,462	2,126	734.4	6.4	524.1	793.8	14.8	48.3	4.3
1981	260.7	1,759	272.7	2,295	70	2,365	111,016	2,151	730.5	6.2	521.7	819.6	14.7	53.7	4.2
1982	309.2	1,647	282.1	2,238			121,584	2,100	732.7	5.4	517.0	770.4	14.2	55.7	4.3
1983	332.1	1,682	293.7	2,308			129,507	2,158	750.9	5.4	546.3	780.0	14.1	56.7	4.3
1984	321.2	1,765.6	327.6				142,201	2,280	777.4	6.0	578.2	837.7	14.2	62.1	4.4
1985[3]							148,876	2,318	794.5	5.7	613.3	822.0	14.3	63.8	4.7

[1] Preliminary. [2] Includes generation of industrial and railway electric plants. [3] Estimate. [4] Also includes interdepartmental (averages about 600 million kwh). [5] Includes internal combustion. *Sources: Federal Power Commission; Edison Electric Institute* T 224

Electric Power Production by Electric Utilities in the U.S. In Billions of Kilowatt Hours

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1973	159.3	143.1	147.8	139.3	147.0	161.0	173.5	177.0	156.3	153.8	147.8	153.3	1,861
1974	156.9	142.4	149.9	141.9	153.4	156.0	177.9	173.8	152.2	151.9	149.8	159.5	1,867
1975	164.3	147.1	155.5	146.2	153.2	162.4	176.8	179.7	155.2	154.9	152.8	169.4	1,918
1976	178.3	156.7	164.2	153.2	157.4	173.4	186.4	186.4	165.0	163.7	169.1	183.9	2,038
1977	196.4	162.7	169.1	156.9	169.3	180.8	198.9	196.1	176.2	166.4	167.1	184.2	2,124
1978	197.3	173.7	173.2	159.7	175.2	187.4	202.6	205.6	185.6	175.6	176.3	191.7	2,206
1979	209.7	186.3	182.8	170.0	178.1	186.7	202.3	204.9	180.8	179.7	177.5	188.7	2,247
1980	200.0	188.7	187.5	168.7	175.7	189.4	216.8	215.4	191.5	178.6	178.6	195.6	2,286
1981	206.5	179.6	185.6	172.5	177.8	202.7	220.4	210.4	186.8	181.4	175.6	195.6	2,295
1982	209.4	180.3	187.7	172.6	177.1	186.1	210.6	205.7	180.7	173.0	173.4	184.7	2,241
1983	195.6	172.5	182.5	170.4	174.4	191.0	220.2	230.0	195.6	182.9	182.9	212.3	2,310
1984	216.6	189.6	200.1	181.1	192.2	209.6	221.2	229.3	195.2	190.9	190.4	200.0	2,416
1985[1]	227.7	198.1	194.7	184.7	196.7	205.0	226.7	226.1	202.4	194.7	193.0	219.2	2,469

[1] Preliminary. *Source: Federal Power Commission* T 225

Use of Fuels for Electric Generation in the United States

	Consumption of Fuel									
Year	Coal (Thousand Short Tons)	Fuel Oil (Thousand Barrels)[2]	Gas (Million Cubic Feet)	Total Fuel in Coal Equivalent (Thousand Short Tons)	Net Generation by Fuels[3] (Million Kw. Hr.)	Lbs. of Coal Per Kw. Hr. (Pounds)	% of Total Net Fuel Generation	Average Cost of Fuel Per Kw. Hr. (¢)	Heat Rate BTU Per Kw. Hr.	Cost Per Million BTU Consumed (¢)
1971	327,878	396,438	3,975,972	599,766	1,307,310	.918	95.9	.40	10,536	37.5
1972	352,391	493,663	3,976,762	647,968	1,421,136	.912	95.6	.43	10,479	41.1
1973	388,190	559,842	3,640,756	688,043	1,498,958	.918	96.1	.50	10,429	48.4
1974	392,344	536,140	3,429,072	685,115	1,449,079	.946	95.6	.93	10,481	89.0
1975	406,032	506,081	3,157,591	686,236	1,441,611	.952		1.12	10,383	108.3
1976	448,431	555,583	3,080,627	740,112	1,558,951	.950		1.20	10,369	115.3
1977	477,215	623,656	3,190,571	798,425	1,648,775	.969		1.38	10,449	131.8
1978	481,624	635,829	3,188,370	811,814	1,646,163	.986		1.53	10,495	145.3
1979	527,317	523,256	3,490,517	837,371	1,708,029	.981		1.62	10,470	155.4
1980	569,453	420,214	3,681,595	916,952	1,753,749	.980		2.07	10,489	197.0
1981	596,936	351,111	3,640,154	922,133	1,755,401	.992		2.42	10,506	230.2
1982	593,666	249,771	3,225,518	858,869	1,644,062	.996		2.46	10,517	234.0
1983	625,211	245,497	2,910,767	861,621	1,678,021	.993		2.40	10,539	227.1
1984[1]	664,399	204,479	3,111,342	909,156	1,758,882	.990		2.41	10,300	234.3

[1] Preliminary. [2] 42-gallon barrels. [3] Excludes wood & waste fuels. *Source: Federal Power Commission* T 226

Fertilizer

The fertilizer industry produces nitrogenous, phosphatic, and potassic (potassium) fertilizers. Nitrogen, phosphorous, and potassium are the primary plant nutrients. The basic nitrogen fertilizer is ammonia, which is made from natural gas and nitrogen. Ammonia may be applied in liquid form below the surface of the soil or converted into solid nitrogenous fertilizers, such as urea or diamonium phosphate. Phosphoric acid, made from phosphate rock and sulfuric acid, is the source of most of the phosphorous used in agriculture. The major potassium fertilizer is potassium chloride, more commonly called potash. Fertilizer chemicals based on nitrogen account for 53 percent of total U.S. fertilizer consumption; those based on phosphorous, 26 percent; and potassium fertilizers, 21 percent.

The world's leading fertilizer producers are the United States, the U.S.S.R., the People's Republic of China, and Canada. The United States leads in phosphate production, followed by Morocco. The Soviet Union leads in ammonia, followed by China and the United States. Canada and the U.S.S.R. share the lead in potash.

The U.S.' nitrogenous fertilizer industry had a good year in 1985. Production of ammonia rose to 16.8 million short tons, 4 percent greater than in 1984. Consumption of nitrogen was up 1%. The value of shipments was 8.8 percent greater than in 1984. Total employment in the nitrogenous fertilizer industry was up 2.2 percent in 1985, while the number of production workers increased by 3.7 percent. Imports declined an estimated 9 percent.

Phosphatic fertilizers' production in 1985 was also expected to reach 16.8 million short tons, which would have been 1 percent greater than in the prior year. Exports of rock were about the same in 1985 as in 1984, while imports continued to be insignificant. Phosphate fertilizer inventories were expected to be up 15 percent to 20 percent in 1985, and consumption of rock was expected to fall 10 percent to 15 percent. When inventories and trade in phosphatic fertilizer derivatives are considered, consumption of phosphatic fertilizers was projected to be down about 10 percent in 1985.

The value of shipments of phosphatic fertilizers in 1985 was estimated as $4.6 billion (in current dollars), about 0.6 percent below the value in 1984. The shipments price index fell 3 percent for the year. The value of imports grew 15.6 percent and the value of exports 20 percent.

For 1986 the forecast for domestic consumption of nitrogenous fertilizer was growth on the order of 1 percent over 1985. This projection assumed that grain production would keep pace, but that assumption may prove to be misplaced, in view of the parlous condition of the grain-growing sector and compounding uncertainties about governmental price-support and farm-credit policies. Similar uncertainty surrounded the projected volume of U.S. exports of nitrogenous fertilizers; much would depend upon the speed with which foreign consumers adapted to the recent depreciation of the dollar against major currencies.

The 1986 forecast for phosphatic fertilizers was on the gloomy side. Shipments were expected to fall from 1985's level by about 13 percent a result of both decreasing domestic demand and probably-diminishing exports. Domestic demand was expected to decline in direct response to reduced output of grain, a major market for phosphates.

World Production of Ammonia In Thousands of Short Tons of Contained Nitrogen

Year	Bulgaria	Canada	China	France	E. Germany	W. Germany	India	Italy	Japan	Mexico	Netherlands	Poland	Romania	Un. Kingdom	United States	USSR	Total
1979	.9	2.2	9.7	2.4	1.2	2.4	2.5	1.6	2.6	1.5	2.1	1.7	2.6	1.8	15.4	13.4	78.4
1980	.9	2.3	11.0	2.3	1.3	2.3	2.4	1.5	2.3	1.7	2.1	1.6	2.5	1.8	16.2	13.9	81.2
1981	.9	2.4	13.4	2.5	1.3	2.2	3.5	1.3	2.0	2.0	2.0	1.5	2.6	2.0	15.7	14.2	84.5
1982	.9	2.3	14.0	2.2	1.3	1.7	3.8	1.2	1.8	2.2	1.8	1.6	2.9	1.9	13.0	15.4	83.1
1983[1]	1.0	2.6	15.2	2.1	1.3	1.9	3.9	1.2	1.7	2.1	1.9	1.6	2.9	1.9	11.3	16.0	85.4
1984[2]	.9	2.8	15.4	2.2	1.3	2.0	4.2	1.2	1.7	2.0	2.5	1.6	2.9	1.9	13.3	16.5	90.2
1985[2]		2.8		2.2		2.0	4.2	1.2	1.7	2.0	2.5			1.9	14.1		92.1

[1] Preliminary. [2] Estimate. *Source: Bureau of Mines* T.227

U.S. Salient Statistics of Nitrogen[1] (Ammonia) In Thousands of Short Tons

					— Apparent Consumption —				Average Price ($ Per Short Ton)			
									Urea			
Year	Net Import Reliance as a % of Appar. Con.	Production (Fixed)	Imports Fixed	Exports (Ammonia)	Fixed (Ammonia)	Elemental	Fixed	Producer Stocks (Year End)	F.O.B. Gulf Coast	Deliv. Corn Belt	Ammonium Nitrate: Deliv. Corn Belt	Ammonia F.O.B. Gulf Coast
1979	7	15,420	1,603	647		14,386	16,565	1,752	145–150	165–170	118–120	128–132
1980	9	16,244	1,921	681			17,754	1,483	170–175	155–170	110–115	120–125
1981	5	15,732	1,719	506			16,467	1,960	130–135	170–180	138–150	132
1982	8	13,029	1,737	610			14,145	1,970	122–125	135–145	125–145	120
1983	18	11,297	2,169	298			13,719	1,422	135–140	160–167	135–145	175
1984[1]	13	13,309	2,699	438			15,287	1,705	147–149	168–200	135–150	147
1985[2]	8	14,100	2,200	1,000			15,400	1,600				135

[1] Elemental, Fixed, & Natural Nitrates. [2] Estimates. *Source: Bureau of Mines* T.228

World Production of Phosphate Rock[3] In Thousands of Metric Tons (Gross Weight)

Year	Algeria	Brazil	China	Christmas Isl.	Israel	Jordan	Morocco	Nauru Island	Senegal	South Africa	Syria	Togo	Tunisia	United States	USSR	World Total
1977	1,173	676	4,000	1,186	1,227	1,782	17,572	1,146	1,871	2,403	425	2,857	3,615	47,256	26,925	119,310
1978	1,136	1,096	4,695	1,400	1,725	2,303	19,713	1,999	1,759	2,699	800	2,827	3,712	50,037	23,900	125,022
1979	1,084	1,628	8,517	1,367	2,086	2,825	20,032	1,828	1,835	3,221	1,272	2,920	4,154	51,611	24,400	131,825
1980	1,025	2,612	10,726	1,713	2,307	3,911	18,824	2,087	1,632	3,185	1,319	2,933	4,582	54,415	30,300	144,193
1981	916	3,238	11,500	1,423	1,919	4,244	18,562	1,480	1,699	2,718	1,321	2,215	4,596	53,624	30,700	143,087
1982	947	2,732	11,720	1,328	2,148	4,390	17,754	1,359	1,182	3,173	1,455	2,800	4,196	37,414	31,300	125,335
1983[1]	893	3,208	12,500	1,094	2,969	4,749	20,106	1,684	1,521	2,742	1,229	2,081	5,924	42,573	31,600	139,265
1984[2]	1,000	3,855	11,800	1,259	3,312	6,263	21,245	1,359	1,912	2,585	1,514	2,696	5,346	49,197	31,900	150,571
1985[2]			13,000		3,500	7,000	23,000		2,000	2,700		2,700	6,000	51,000	33,000	159,000

[1] Preliminary. [2] Estimate. [3] And Basic Slag & Guano. *Source: Bureau of Mines* T.229

U.S. Salient Statistics of Phosphate Rock In Thousands of Metric Tons

Year	Mine Production	Marketable Production	Value Mil. $	Imports for Consumption	Exports	Apparent Consumption	Stocks, Dec. 31 (Producer)	Price—$ Avg. Per Metric Ton (f.o.b. Mine)	Avg. Price of Fla. & No. Car. $ Tonn. —F.O.B. Mine (−60% to +74)		
									Domestic	Export	Average
1976	154,278	44,662	949.4	42	9,433	31,131	13,770	21.26			
1977	166,893	47,256	821.7	158	13,230	34,365	13,682	17.39			
1978	173,429	50,037	928.8	908	12,870	36,812	15,748	18.56			
1979	185,757	51,611	1,046	886	14,358	39,591	14,500	20.26	18.91	24.60	20.57
1980	209,883	54,415	1,257	486	14,276	40,791	13,709	23.10	21.01	30.03	23.51
1981	183,733	53,624	1,438	13	10,395	35,144	19,619	26.82	25.17	33.74	27.68
1982	104,135	37,414	950	31	9,842	28,760	18,287	25.40	28.78	28.92	25.93
1983	125,691	42,573	1,021	9	12,010	34,838	14,500	23.98	22.64	25.70	23.48
1984[1]	163,012	49,197	1,182	9	11,528	41,758	11,897	24.03	22.67	26.28	23.48
1985[2]		51,045		31	9,932	36,655	15,894	23.50			

[1] Preliminary. [2] Estimate. *Source: Bureau of Mines* T.230

U.S. Salient Statistics of Potash In Thousands of Metric Tons (K_2O Equivalent)

Year	Net Import as % of Consumption	Production	Sales by Producers	Value Mil. $	Imports for Consumption	Exports	Apparent Consumption	Producer Stocks Dec. 31	$ per ton		Average Price[3] $ Per Met. Ton
									Avg. Value Per Ton of Product—$	Avg. Value of K_2O Equiv.	
1976	61	2,177	2,268	210.8	4,168	857	5,578	471	50.37	92.93	73
1977	63	2,229	2,232	206.9	4,605	845	5,992	467	48.78	92.68	71
1978	64	2,253	2,307	226.5	4,707	809	6,205	414	51.97	98.16	76
1979	66	2,225	2,388	279.2	5,165	635	6,918	251	61.38	116.92	95
1980	65	2,239	2,217	353.9	4,972	840	6,349	273	82.98	159.63	133
1981	65	2,156	1,908	328.9	4,796	491	6,213	520	89.62	172.40	137
1982	65	1,784	1,784	265.6	3,858	519	5,123	520	78.42	148.87	109
1983	75	1,429	1,513	220.8	4,440	300	5,653	391	74.85	145.97	100
1984[1]	74	1,564	1,639	241.8	4,829	446	6,022	312	75.95	147.55	109
1985[2]	77	1,325			4,825	350	5,782	330	73.00		95

[1] Preliminary. [2] Estimate. [3] Unit of K_2O, standard 60% muriate f.o.b. mine. *Source: Bureau of Mines* T.232

World Production of Marketable Potash In Thousands of Metric Tons (K_2O Equivalent)

Year	Canada (sales)	Chile	China	Congo (Brazz.)	France	Germany		Israel	Italy	Jordan	Spain	USSR	United States	United Kingdom	World Total
						East	West								
1976	4,996	15	150	254	1,603	3,161	2,036	680	330	—	630	8,310	2,177	41	24,386
1977	5,764	11	18	136	1,580	3,229	2,341	730	224	—	562	8,347	2,229	81	25,252
1978	6,340	17	21	—	1,795	3,323	2,470	744	196	—	613	8,193	2,253	157	26,122
1979	7,074	22	16	—	1,921	3,395	2,616	737	182	—	668	6,635	2,225	277	25,768
1980	7,532	25	12	—	1,894	3,422	2,737	797	156	—	658	8,064	2,239	321	27,857
1981	6,549	21	20	—	1,831	3,460	2,591	839	146	—	732	8,449	2,156	285	27,079
1982	5,309	22	26	—	1,704	3,434	2,056	1,004	146	9	692	8,079	1,784	401	24,665
1983[1]	6,938	21	29	—	1,536	3,431	2,419	1,000	200	170	657	9,294	1,429	302	27,426
1984[2]	7,685	22	40	—	1,500	3,450	2,280	1,100	180	280	677	9,500	1,564	360	28,638
1985[2]	7,500				1,500	3,450	2,280	1,200	200	240	650	9,600	1,325	400	28,600

[1] Preliminary. [2] Estimate. *Source: U.S. Bureau of Mines* T.231

Flaxseed and Linseed Oil

The USDA in early 1986 forecast 1985/86 world production of flaxseed at 2.54 million tonnes, nearly 16 percent above 1984/85 output. Another sharp increase occurred in Canadian production, and a minor one in Argentina. U.S. production also increased to about the 1979/80–1983/84 average. The bulk of the flaxseed (linseed) harvest in Canada takes place in August–October; in December–January for Argentina; and January–April in India, the third largest producer.

The 1985/86 world flaxseed crush was forecast by the USDA at 1.91 million tonnes, up from 1.87 million estimated for 1984/85. World exports of flaxseed in 1985/86 were forecast at 560 thousand tonnes, up 10 percent from 1984/85 exports. World 1985/86 ending stocks were projected at 420 thousand tonnes versus 210 thousand tonnes at the end of the 1984/85 season.

World production of linseed oil in 1985/86 was forecast by the USDA at 660 thousand tonnes versus an estimated 650 thousand in 1984/85. Exports were forecast at 230 thousand tonnes versus 210 thousand. Ending stocks were projected at 40 thousand tonnes, about unchanged from a year earlier.

World production of linseed meal was estimated at 1.24 million tonnes versus 1984/85 production of 1.19 million tonnes (based on assumed extraction rates, which represent potential rather than actual production). World exports of linseed meal were forecast by the USDA at 560 thousand tonnes in 1985/86 versus 1984/85 exports of 510 thousand tonnes. Ending world stocks were projected at 30,000 tonnes, about unchanged from a year earlier.

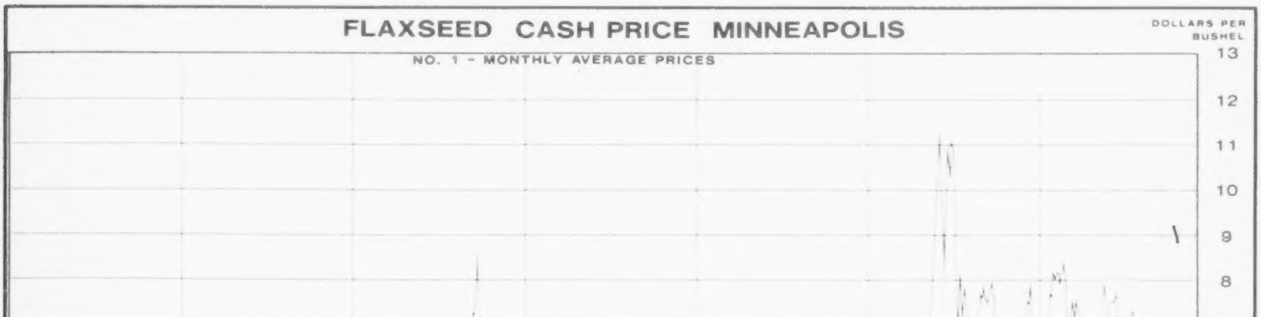
Futures Market

Flaxseed futures are traded on the Winnipeg Commodity Exchange.

World Production of Flaxseed In Thousands of Metric Tons

Crop Year	Argentina	Australia	Czechoslovakia	Canada	Ethiopia	Egypt	France	Hungary	India	Mexico	Poland	Romania	Turkey	Uruguay	United States	USSR	World Total
1977-8	855	35		653	50		44		527	18	38	50	6	40	409	300	2,941
1978-9	810	28		572	50		43		527	18	38	50	6	40	277	300	2,468
1979-0	600	14		815			31		535	15	52		3	31	305	250	2,687
1980-1	610	7	15	442		27	35	10	423	8	29	44	3	21	196	196	2,096
1981-2	600	7	12	468		18	18	11	483	12	24	38	2	14	185	165	2,086
1982-3	765	3	15	752		38	31	11	375	1	20	43	2	6	261	150	2,502
1983-4	703	4	15	447		16	29	11	440	4	25	23	2	11	175	259	2,193
1984-5[1]	550	5	15	690		17	35	12	390	3	20	42	2	12	178	250	2,240
1985-6[2]	480			920					450						211	230	2,480

[1] Preliminary. [2] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T.233


FLAXSEED CASH PRICE MINNEAPOLIS

FLAXSEED AND LINSEED OIL

Production of Flaxseed in the United States In Thousands of Bushels

Year	Crop Production Estimates				By States					
	Aug. 1	Sept. 1	Oct. 1	Dec. 1	Minnesota	Montana	North Dakota	South Dakota	Texas	U.S. Total
1976	6,776	6,967	6,951	7,356	1,950	50	4,000	1,380	440	7,580
1977	15,466	16,011	16,249	16,105	3,190	35	7,500	4,290	90	14,280
1978	11,156	11,348	11,705	10,921	2,201	—	4,025	2,188	200	8,614
1979	11,847	12,501	13,255	13,539	2,219	—	5,980	3,770	45	12,014
1980	7,060	7,700	7,940	8,128	1,563	—	2,900	3,445	20	7,728
1981	8,083	8,083	7,893	7,799	1,300	—	4,250	2,249	—	7,289
1982	10,940	11,485	11,730	11,635	1,650	—	5,873	2,755	—	10,278
1983	8,295	7,535	7,413	7,363	938	—	4,600	1,365	—	6,903
1984	7,260	7,555	7,555	7,022	653	—	4,875	1,494	—	7,022
1985[1]	8,220	8,513	8,512	8,293	950	—	6,008	1,335	—	8,293

[1] Preliminary, December estimate. *Source: Agricultural Board, U.S.D.A.* T 234

U.S. Supply and Distribution of Fiaxseed In Thousands of Bushels

Year Beginning June	Supply							Distribution				
	Stocks, June 1											
	Farm	Terminal	All Other	Total Stocks	Imports	Production	Total Supply	Seed	Crushing	Exports	Other[2]	Total Distribution
1976-7	1,830	—3,060—		4,890	2,168	7,580	14,638	1,043	10,677	196	−239	11,481
1977-8	1,070	—1,934—		2,961	859	14,280	18,100	557	11,615	1,001	−388	11,784
1978-9	2,890	—2,606—		5,315	1,557	8,614	15,486	724	13,009	91	−922	12,811
1979-0	977	—1,607—		2,584	1,916	12,014	16,514	650	12,425	174	−1,753	11,322
1980-1	2,681	—2,337—		5,018	2,510	7,728	15,256	547	11,927	76	−27	12,447
1981-2	1,136	—1,597—		2,733	3,502	7,289	13,524	691	11,231	11	−359	11,574
1982-3	1,175	— 775—		1,950	1,921	10,278	14,149	486	8,722	638	1,091	10,937
1983-4	1,956	—1,258—		3,212	4,756	6,903	14,871	438	12,733	52	−84	13,155
1984-5[1]				1,716	3,796	7,022	12,534	511	9,935	238	0	10,684
1985-6[3]				1,850	3,010	8,293	13,153	515	10,000	45	0	10,560

[1] Preliminary. [2] Other disappearance represents cleaning loss, waste, and residual. [3] Forecasts. *Source: Agricultural Statistics Board, U.S.D.A.* T 235

Average Price Received by Farmers for Flaxseed in the U.S. In Cents Per Bushel

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Average[1]
1976-7	720	704	748	708	726	700	704	720	742	752	722	637	708
1977-8	514	415	420	456	420	432	421	407	441	485	532	589	454
1978-9	524	534	531	525	539	530	567	601	648	706	737	727	574
1979-0	690	642	634	556	544	561	551	579	585	551	604	588	597
1980-1	655	702	717	710	723	759	754	748	725	735	765	747	720
1981-2	723	708	644	621	664	684	690	691	680	669	660	665	673
1982-3	625	535	537	511	495	468	486	470	460	454	469	492	519
1983-4	496	594	714	700	692	655	686	701	710	708	720	691	677
1984-5	625	607	572	567	586	605	659	664	618	667	694	654	625
1985-6	610	572	539	501	480	478	477	493	495	472			

[1] Season average includes an allowance for unredeemed loans. *Source: Agricultural Statistics Board, U.S.D.A.* T 236

Average Price of No. 1 Flaxseed at Minneapolis In Dollars Per Bushel

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Average[1]
1976-7	7.63	7.91	7.61	7.71	7.46	7.54	7.63	7.82	7.99	7.76	6.10	5.17	7.36
1977-8	4.26	4.41	4.79	—	4.80	4.61	4.51	4.78	5.30	5.78	6.25	5.22	4.97
1978-9	5.47	5.76	5.70	5.99	5.75	6.17	6.63	7.22	7.54	7.51	7.98	7.23	6.58
1979-0	7.00	6.71	6.12	5.84	6.16	6.14	6.47	6.44	5.95	6.24	6.50	7.15	6.39
1980-1	7.70	7.65	7.82	8.23	8.04	8.17	8.19	7.93	8.11	8.42	8.06	7.85	8.01
1981-2	7.62	7.02	7.00	7.41	7.61	7.15	7.57	7.47	7.35	7.28	7.02	6.90	7.28
1982-3	5.90	5.93	5.70	5.71	5.52	5.36	5.37	5.23	5.22	5.25	5.66	5.58	5.54
1983-4	6.15	7.93	7.65	7.09	6.92	7.50	7.52	7.54	7.52	7.70	7.19	6.39	7.26
1984-5	6.68	6.25	6.26	6.51	6.76	7.00	7.00	6.91	7.31	7.29	7.01	6.61	6.80
1985-6	6.31	6.14	5.64	5.25	5.38	5.40							

[1] Weighted average by carlot sales. *Source: Agricultural Statistics Board, U.S.D.A.* T 238

Supply and Distribution of Linseed Oil in the U.S. & World Production & Price In Millions of Pounds

					Domestic Disappearance							Production[3] in 1,000 tonnes				
	Supply				Drying Oil Products											
Year Beginning June	Stocks June 1	Production	Total	Exports & Shipments	Paint & Varnish	Linoleum & Oilcloth	Resins & Plastics	Other Inedible	Total	Lubricants & Similar Oils	Total	Total World	Argentina	India	U.S.	Rotterdam Ex-Tank $ Tonne
1978-9	70	259	329	54	127.7		29.5				207.5					601
1979-0	44	256	300	38	103.7		19.6				160.0	685	169	116	114	668
1980-1	54	251	305	51	69.6		23.3				127.6	627	162	140	108	694
1981-2[1]	56	237	293	54	42.4		20.9				92.7	630	221	138	82	564
1982-3[1]	50	182	232	21								640	349	145	120	456
1983-4[2]	35	265	300	51	56.5		27.7				121.2	730	471	139	109	556
1984-5[2]	33											660	423			639

[1] Preliminary [2] Estimate [3] Oil production calculated from assumed extraction rates. *Source: Economic Research Service, U.S.D.A.* T.239

U.S. Linseed Oil Consumption in Refining In Millions of Pounds

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1977-8	23.9	22.9	13.7	10.9	8.9	3.8	15.4	15.8	23.9	21.2	42.5	21.5	224.7
1978-9	6.1	31.5	14.0	22.3	16.1	11.4	16.2	15.0	14.7	21.7	20.5	18.3	267.9
1979-0	18.4	19.9	15.8	24.3	14.9	11.4	11.7	12.3	14.6	17.1	11.6	12.2	184.2
1980-1	13.2	15.7	16.7	21.1	11.4	11.6	13.6	13.9	12.2	19.8	15.4	12.9	177.5
1981-2	21.0	16.0	15.3	15.2	N.A.	N.A.	6.5	9.6	11.5	17.5	9.9	9.0	131.5
1982-3	8.7	8.3	8.4	7.6	6.1	5.0	6.0	6.3	7.1	7.0	7.6	8.9	87.0
1983-4	11.7	11.9	12.4	16.5	10.6	10.0	13.5	12.6	21.8	8.0	N.A.	N.A.	129.0
1984-5[1]	N.A.	N.A.	16.1	15.6	N.A.	N.A.	12.3	N.A.	N.A.	15.0	19.2	N.A.	78.2
1985-6	16.0	9.9	15.3	14.3	12.2	9.2	9.4						

[1] Preliminary *Source: Bureau of the Census* T.242

Factory Shipments of Paints, Varnish and Lacquer in the U.S. In Millions of Dollars

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1981	482.8	512.9	625.7	660.7	654.8	721.8	652.4	661.8	652.6	599.7	489.7	440.4	7,155
1982	486.9	509.1	616.1	633.4	664.3	736.0	631.6	671.5	653.8	545.2	479.8	419.7	7,047
1983	495.2	522.7	661.2	681.9	733.9	814.2	697.6	760.2	719.5	662.2	585.0	510.2	7,844
1984	628.7	676.7	764.2	758.2	843.4	844.0	789.4	838.1	749.7	771.0	638.5	571.3	8,873
1985[1]	669.5	661.2	806.2	925.5	996.0	942.9	925.5	925.4	864.3	878.4	720.0	614.3	9,929

[1] Preliminary *Source: Bureau of the Census* T.246

Wholesale Price of Raw Linseed Oil at Minneapolis in Tank Cars In Cents Per Pound

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Average
1978-9	22.5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	30.0	30.0	24.9
1979-0	30.0	30.0	32.0	32.0	32.0	32.0	32.0	28.8	28.8	27.8	26.6	27.0	29.9
1980-1	27.0	28.6	29.0	29.2	29.0	29.8	32.8	32.0	31.3	32.0	32.6	32.8	30.5
1981-2	32.8	32.3	31.8	30.8	30.0	27.6	29.5	28.5	28.2	28.0	28.0	27.0	29.5
1982-3	27.8	26.3	26.0	24.6	25.0	25.2	24.6	25.0	24.3	23.6	23.0	23.0	24.9
1983-4	22.8	25.5	31.6	34.0	31.5	32.0	32.0	32.0	31.8	32.0	33.0	34.5	31.1
1984-5	33.4	38.0	31.0	28.8	28.5	30.0	31.2	32.0	N.A.	N.A.	N.A.	N.A.	31.6
1985-6	34.6	33.3	33.0	30.0	30.0	27.6							

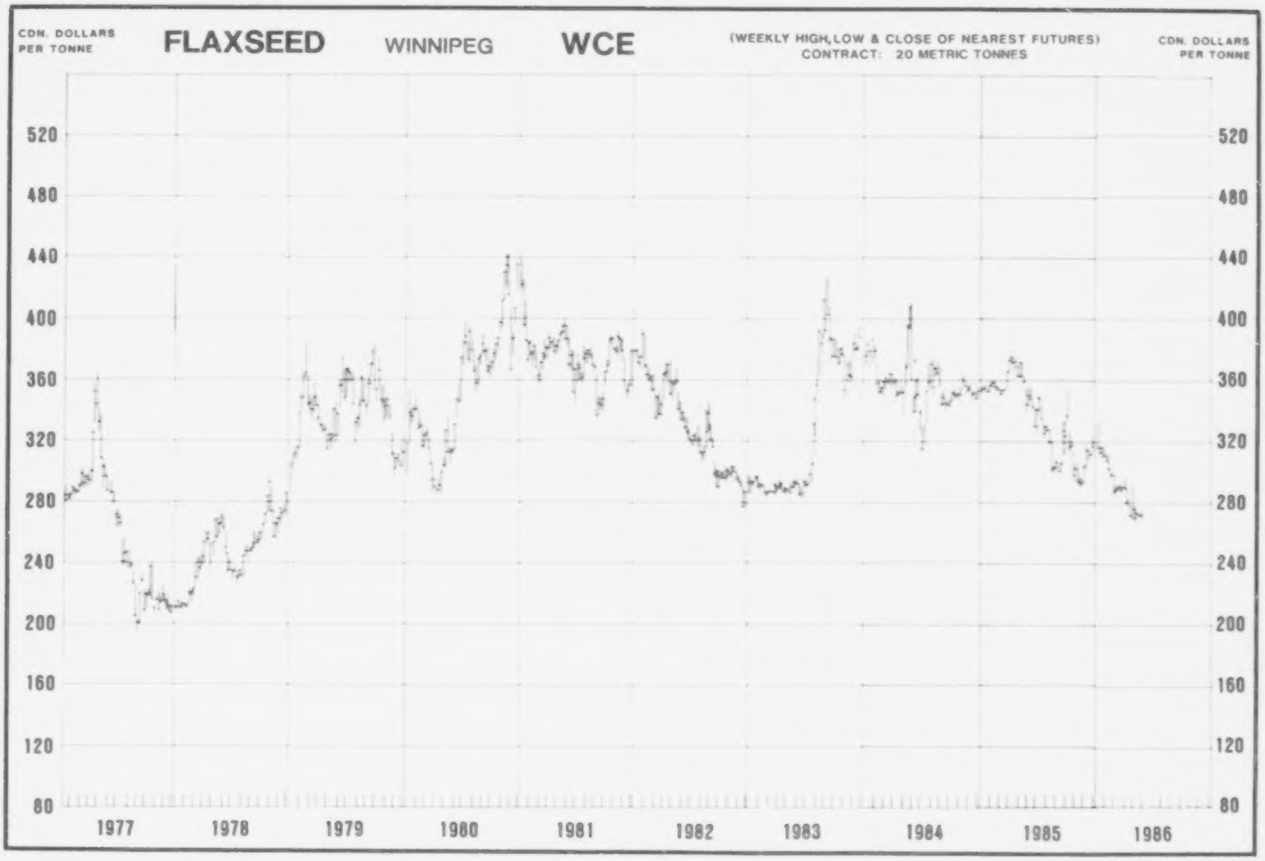
Source: Department of Agriculture T.240

U.S. Stocks of Linseed Oil (Crude & Refined) at Factories & Warehouses In Millions of Pounds

Year	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1	Jan. 1	Feb. 1	Mar. 1	April 1	May 1	June 1
1977-8	87.3	74.0	69.0	79.2	72.6	74.2	89.2	93.2	92.0	74.8	76.3	69.6
1978-9	62.6	75.6	49.9	44.8	34.4	34.8	34.9	34.8	35.5	37.4	43.6	43.9
1979-0	49.1	39.9	47.7	62.9	46.4	43.6	35.6	41.8	36.3	48.2	65.6	53.5
1980-1	42.9	45.3	35.5	52.5	43.8	34.5	45.6	50.6	53.3	34.7	42.1	56.3
1981-2	67.1	57.4	65.7	71.4	72.1	64.3	56.3	62.7	57.0	64.6	66.7	50.4
1982-3	37.4	33.9	30.5	44.6	43.0	26.8	39.0	34.1	41.8	41.6	27.1	35.1
1983-4	54.7	46.5	41.7	50.4	46.0	34.9	34.1	38.0	40.3	41.5	55.2	47.6
1984-5[1]	50.7	40.8	24.9	48.3	41.3	36.1	39.3	38.3	34.1	30.1	35.1	33.4
1985-6[1]	32.7	36.9	25.4	47.0	62.3	55.2	60.5	62.7	64.3			

[1] Preliminary *Source: Bureau of the Census* T.245

FLAXSEED AND LINSEED OIL



High, Low & Closing Prices of May Flaxseed Futures in Winnipeg In Canadian Dollars per Tonne

Year of Delivery		Year Prior to Delivery							Delivery Year					Life of Delivery Range
		June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	
1983	High	385.00	374.00	369.50	369.20	332.70	325.00	318.00	304.50	304.00	299.50	294.50	294.50	385.00
	Low	373.50	355.00	347.10	326.60	318.10	316.00	288.30	290.90	289.20	288.00	286.80	285.30	285.30
	Close	373.50	355.10	364.50	326.60	318.30	317.70	293.50	304.00	289.30	291.00	287.00	288.80	—
1984	High	—	—	409.0	454.0	416.0	402.9	408.0	390.1	386.2	366.0	362.3	408.0	454.0
	Low	—	—	352.0	407.0	391.5	369.0	377.5	370.0	350.0	353.0	347.0	337.5	337.5
	Close	—	—	408.0	415.5	391.5	381.0	392.6	382.5	353.0	359.0	347.5	376.5	—
1985	High	385.0	394.0	402.5	382.5	380.5	384.5	377.5	363.7	366.8	366.0	377.0	372.2	
	Low	365.0	356.0	380.6	372.0	371.5	371.3	361.0	358.8	361.0	357.0	365.0	344.0	
	Close	376.5	385.6	389.0	375.5	371.8	376.0	361.0	362.0	362.5	365.5	366.0	347.8	
1986	High	375.0	373.1	353.9	340.0	349.0	313.0	333.0	334.0	319.3	300.5	293.5		
	Low	374.2	350.3	318.2	318.0	316.0	303.5	309.1	317.0	295.3	290.3	270.1		
	Close	366.0	350.3	324.4	328.5	317.5	308.5	325.0	318.0	295.5	293.5	290.4		

Source: Winnipeg Commodity Exchange

T 243

Month End Open Interest of Flaxseed Futures in Winnipeg In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1982	6,339	7,201	7,714	7,214	4,897	4,976	4,390	6,041	6,306	5,783	6,493	4,097
1983	4,759	5,261	4,128	5,039	4,552	3,697	3,321	2,520	3,953	3,345	6,282	6,091
1984	6,509	6,964	5,100	5,944	4,509	3,943	5,140	6,164	5,853	4,490	5,618	5,162
1985	5,408	5,927	6,281	5,783	6,321	5,848	5,016	5,913	5,815	4,315	4,186	4,024
1986	5,037	5,600	5,204	6,586								

Source: Winnipeg Commodity Exchange

T 244

Gas

Although residential and industrial users of natural gas in the U.S. paid higher prices in 1985, the year-over-year percentage increase to consumers was modest—on the order of 2%. At the wellhead, the price of domestically produced gas was virtually unchanged for the third consecutive year, despite that on New Year's Day, 1985, most remaining governmental price ceilings were removed.

Domestic production amounted to just over 17 trillion cubic feet in 1985, unchanged from 1984. Consumption rose about 1% to roughly 18 trillion cubic feet. Imports, chiefly from Canada, covered the gap between domestic production and usage. A principal contributor to output and price stability was the ongoing decline in gas' share in electricity generation, as electric utilities continued to switch from usage of gas to coal and (to a less extent) nuclear power.

A combination of factors promised to hold output, consumption and prices close to their 1985 rates during 1986. On the demand side, residential and commercial consumption were expected to adhere to their respective long-term trend-lines, but those increases in usage were expected to be offset by a further reduction in demand for gas for electricity generation. Lacking any incentive to do so, domestic producers of natural gas were expected to hold output to about the same level as in recent years. So imports were estimated to remain the same or, at most, grow slightly.

With both demand and supply shifting hardly at all, nominal prices were also expected to be stable, which meant that real (inflation-adjusted) prices would fall by the expected inflation rate of 4%-5%. The real price fall could be even greater if a larger-than-expected shift away from gas to oil occurs,-as a result of the sharp drop in petroleum prices in late 1985 and early 1986.

World Natural Gas Production (Marketed Production[3]) In Thousands of Terajoule[4]

Year	Argentina	Canada	China	France	Indonesia	W. Germany	Iran	Italy	Mexico	Netherlands	Poland	Romania	United Kingdom	United States	USSR	Venezuela	Australia
1976	268	2,820		279	115	676	788	600	515	3,422	243	1,384	1,491	20,552	11,194	497	231
1977	271	2,962		299	162	673	743	524	538	3,067	249	1,465	1,536	18,921	12,102	510	264
1978	256	2,856	535	307	353	720	668	524	701	3,048	244	1,475	1,458	18,846	12,967	528	274
1979	303	3,041	566	303	482	729	700	581	832	3,100	224	1,409	1,470	19,415	14,160	601	303
1980	327	2,790	558	289	607	632	279	476	1,036	3,012	193	1,455	1,379	19,256	15,168	643	351
1981	340	2,748	496	277	653	680	247	536	1,033	2,664	187	1,532	1,374	19,057	16,215	647	406
1982	393	2,825	464	341	646	577	257	555	1,068	2,280	167	1,640	1,526	17,656	17,414	684	432
1983	457	2,740	475	379	844	629	264	498	1,048	2,422	193	1,680	1,577	15,880	18,628	644	443
1984[1]	498	2,964	478		1,669	587		533	1,095	2,445	210		1,590	17,116	20,469		470
1985[2]	505	3,000	500		1,690	580		540	990	2,450	225		1,650	16,850	21,000		490

[1] Preliminary. [2] Estimate. [3] Comprises all gas collected & utilized as fuel or as a chemical industry raw material, including gas used in oilfields and/or gasfields as a fuel by producers. [4] Terajoule = 10^{12} Joule = approx. 10^{9} BTU. *Source: United Nations* T.247

United States Recoverable Reserves and Deliveries of Natural Gas In Billions of Cubic Feet

Year	Recoverable Reserves of Natural Gas Dec. 31[3]	Deliveries									
		Residential	Commercial	Lease & Plant Fuel	Carbon Black	Petroleum Refineries	Used as Pipeline Fuel	Industrial	Other Consumers	Total Deliveries	Electric Utility Plants[2]
1974	237,132	4,786	2,556	1,477	40	1,040	669	8,292		19,077	3,443
1975	228,200	4,924	2,508	1,396	26	946	583	6,968		17,558	3,158
1976	216,026	5,051	2,668	1,634	28	919	548	6,964	285	17,764	3,081
1977	208,878	4,821	2,501	1,659	28		533	6,815	257	17,329	3,191
1978	200,302	4,903	2,601	1,648			530	6,757	291	17,449	3,188
1979	200,987	4,965	2,786	1,499			601	6,899	301	18,141	3,491
1980	199,021	4,752	2,611	1,026			635	7,172		18,216	3,682
1981	201,730	4,546	2,520	928			642	7,128		17,834	3,640
1982	201,512	4,633	2,606	1,109			596	5,831		16,295	3,226
1983	200,247	4,381	2,433	978			490	5,643		15,367	2,911
1984[1]	197,463	4,555	2,524	1,077			529	6,153		16,345	3,111
1985[4]		4,412	2,432	1,016			507	5,831		15,706	3,030

[1] Preliminary. [2] Figures include gas other than natural (impossible to segregate); therefore, shown separately from other consumption. [3] Estimated proved recoverable reserves. [4] Estimated. *Source: U.S. Dept. of Energy* T.251

GAS

Gas Utility Sales in the United States by Types & Class of Service In Trillions of BTU's[3]

Year	Total Utility Sales	No. of Cust. (Mil.)	Class of Service				Revenue—Mil. $				
			Residential	Commercial	Industrial	Other	Total	Residential	Commercial	Industrial	Other
1973	164,799	44.2	49,936	22,808	83,708	8,347	12,987	6,247	2,172	4,197	371
1974	160,003	44.7	48,648	22,934	81,532	6,890	15,242	6,899	2,539	5,391	413
1975	148,629	44.8	49,910	23,868	68,371	6,480	19,101	8,445	3,303	6,745	608
1976	148,135	45.1	50,142	24,266	71,070	2,696	23,701	9,941	4,075	9,435	250
1977	143,409	45.7	49,463	24,094	67,107	2,746	28,303	11,541	4,980	11,455	328
1978	147,480	46.0	51,070	25,000	68,410	3,010	32,150	12,939	5,696	13,139	377
1979	154,400	46.7	50,830	24,860	75,550	3,160	38,947	14,833	6,624	17,045	446
1980[3]	15,413	47.4	4,826	2,453	7,957	177	48,303	17,432	8,183	22,215	473
1981	15,375	48.1	4,610	2,375	8,239	150	56,110	19,180	9,286	27,124	520
1982	14,183	48.5	4,770	2,471	6,794	147	63,200	23,700	11,666	27,200	634
1983	12,859	48.9	4,450	2,298	5,970	140	65,837	26,173	12,659	26,315	690
1984[1]	13,162	49.5	4,628	2,396	5,991	146	67,496	27,485	13,205	26,093	713
1985[2]	11,500	49.7	3,700	2,100	5,400	120	57,000	23,000	11,500	22,000	560

[1] Preliminary. [2] Estimate. [3] Data prior to 1980 are in *Millions of Therms*. *Source: American Gas Association* T 253

Salient Statistics of Natural Gas in the United States

Year	In Billions of Cubic Feet										Avg. Value Delivered to Consumers—$ Per Ths. Cu. Ft.					
	Supply				Disposition											
	Marketed Production	Storage Withdrawals	Import (Consumed)	Total Supply	Consumption	Exports	Stored	Extraction Loss	Unaccounted For	Total Disposition	Wellhead Price	Imports	Residential	Commercial	Industrial	Electric Utilities
1973	22,648	1,533	1,033	25,213	22,049	77	1,974	917	196	25,213	.22	N.A.	1.29	.94	.50	.38
1974	21,601	1,701	959	24,260	21,223	77	1,784	887	289	24,260	.30	N.A.	1.43	1.07	.67	.71
1975	20,109	1,760	953	22,821	19,538	73	2,104	872	235	22,821	.45	N.A.	1.71	1.35	.96	.77
1976	19,952	1,921	963	23,030	19,946	65	1,756	854	216	22,837	.58	N.A.	1.98	1.64	1.24	1.06
1977	20,025	1,750	1,011	22,809	19,521	56	2,307	863	41	22,786	.79	N.A.	2.35	2.04	1.50	1.32
1978	19,974	2,158	966	23,126	19,627	53	2,278	852	287	23,097	.91	2.21	2.56	2.23	1.70	1.48
1979	20,471	2,047	1,253	22,964	20,241	56	2,295	808	372	23,772	1.18	2.60	2.98	2.73	1.99	1.81
1980	20,180	1,972	985	22,515	19,877	49	1,949	777	640	23,292	1.59	4.42	3.68	3.39	2.56	2.27
1981	19,956	1,930	904	22,191	19,404	59	2,228	775	501	22,967	1.98	4.84	4.29	4.00	3.14	2.89
1982	18,520	2,165	933	21,001	18,001	52	2,472	762	475	21,762	2.46	4.94	5.17	4.82	3.87	3.48
1983	16,822	2,270	920	19,354	16,835	55	1,822	790	642	20,144	2.59	4.51	6.06	5.59	4.18	3.58
1984[1]	18,230	2,098	843	21,171	17,951	55	2,295	838	143	21,282	2.66	4.08	6.12	5.55	4.22	3.72
1985[2]	17,167	2,373	927	20,467	17,229	55	2,135	788	392	20,599	2.48	3.30	6.13	5.49		3.50
1986																

[1] Preliminary. [2] Estimate. [3] Total value of market production at the wellhead. *Source: U.S. Dept. of Energy* T 248

United States Marketed Production[1] of Natural Gas In Billions of Cubic Feet

Year	Arkansas	California	Kansas	Alaska	Louisiana	Mississippi	Montana	New Mexico	Ohio	Oklahoma	Pennsylvania	Texas	West Virginia	Wyoming	Michigan
1972	167	487	889	126	7,973	104	33	1,216	90	1,807	74	8,658	215	375	
1973	158	449	893	131	8,242	100	56	1,219	94	1,771	79	8,514	209	358	
1974	124	365	887	129	7,754	79	55	1,245	92	1,639	83	8,171	202	327	
1975	116	318	844	160	7,091	70	41	1,217	85	1,605	85	7,486	154	316	102
1976	110	354	829	166	7,007	71	43	1,231	89	1,727	89	7,192	153	329	119
1977	104	311	781	188	7,215	83	47	1,203	99	1,770	92	7,051	153	330	130
1978	107	311	854	203	7,476	107	47	1,174	114	1,774	98	6,548	149	357	148
1979	109	248	798	221	7,266	144	54	1,181	123	1,835	96	7,175	151	414	160
1980[2]	112	264	732	226	6,937	165	54	1,142		1,892		7,169	152	382	153
1981															

[1] Comprises gas either sold or consumed by producers, including losses in transmission, quantities added to storage and increases of gas in pipelines. [2] Preliminary. *Source: U.S. Dept. of Energy* T 250

Gasoline

An average of 6.8 million barrels of gasoline per day were supplied in the United States during 1985, about 1 percent more than in 1984 and the largest amount since 1979 when the figure was just in excess of 7 million barrels. Ninety-four percent of the supply was produced in domestic refineries, with imports making up practically all of the remainder. Two-thirds of the product supplied was unleaded fuel; that fraction was the highest yet reached, having climbed steadily year-by-year from only 27.5 percent in 1977. Exports of gasoline, never more than a tiny fraction of total supply in the last decade-and-a-half, averaged only 10 thousand barrels per day in 1985.

The sharp drop in crude oil prices that commenced in November 1985 came too late to affect that year's average retail prices. To the contrary, average retail price in U.S. cities for all types of gasoline began 1985 at $1.145 per gallon and ended it at $1.203; the peak was hit, as usual, in mid-summer, when the average price for all types was $1.233. Unleaded regular, taken separately, rose in price from an average of $1.148 in January to $1.202 in December, while unleaded premium went from $1.304 in January to $1.34 in December.

An unheralded but salient fact about gasoline prices is that they have increased much more slowly than the Urban Consumers' Price Index since 1980. In that year the average retail price of regular leaded gasoline was $.605 per gallon stated in 1972 dollars. By 1985, that average constant-dollar price had fallen to about $.44, a drop of more than 27 percent.

The efficiency of passenger cars operated in the United States continued its slow improvement. In 1984, the latest year for which data are now at hand, the average consumption of gasoline per car was 579 gallons, down 24 percent from its apex in 1973. Average miles traveled per car at about 9,800 were little changed from prior years, so average miles traveled per gallon of fuel consumed hit a new peak of 16.94 miles. The latter number, which reflects usage in cars of all sizes and weights, was nearly 12 percent higher than the comparable figure for 1980 and nearly 30 percent higher than in 1973.

The major regulatory development of 1985 was the EPA-ordered reduction, effective 1 July, of the standard for lead content in gasoline from 1.1 grams per gallon to 0.5 grams. Effective 1 January 1986, the standard fell further to 0.1 gram per gallon. EPA has proposed complete elimination of lead from gasoline by 1988.

High, Low & Closing Prices of December Leaded Regular Gasoline Futures In N.Y. In ¢ Per Gallon

Year of Delivery		Yr. Prior to Delivery			Delivery Year											Life of Delivery Range
		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	
1983	High	99.25	96.50	87.15	84.05	79.70	77.50	82.00	81.00	82.75	83.50	84.10	81.90	80.40	81.70	99.25
	Low	96.50	88.50	83.00	79.40	71.75	71.00	77.00	75.20	77.75	80.25	81.70	78.30	76.00	76.50	71.00
	Close	96.50	88.50	83.00	79.40	72.00	76.50	80.00	78.70	81.60	83.30	81.95	78.53	79.98	76.86	—
1984	High	—	—	—	—	—	—	—	80.30	79.60	76.75	77.35	76.60	76.40	73.00	80.30
	Low	—	—	—	—	—	—	—	79.20	75.80	71.40	73.05	74.90	69.08	67.30	67.30
	Close	—	—	—	—	—	—	—	79.20	77.25	72.30	75.95	76.10	72.50	68.15	—
1985	High	78.10	74.00	72.50	68.90	71.45	74.75	76.00	70.60	70.60	70.60	72.40	74.05	78.45	80.10	
	Low	72.20	69.61	67.55	65.35	68.80	69.75	70.00	68.75	66.40	68.25	68.80	67.40	72.70	77.00	
	Close	73.25	71.05	69.50	68.70	69.25	74.75	70.00	70.15	69.90	69.40	70.45	73.61	79.02	77.94	—

Source: N.Y. Mercantile Exchange

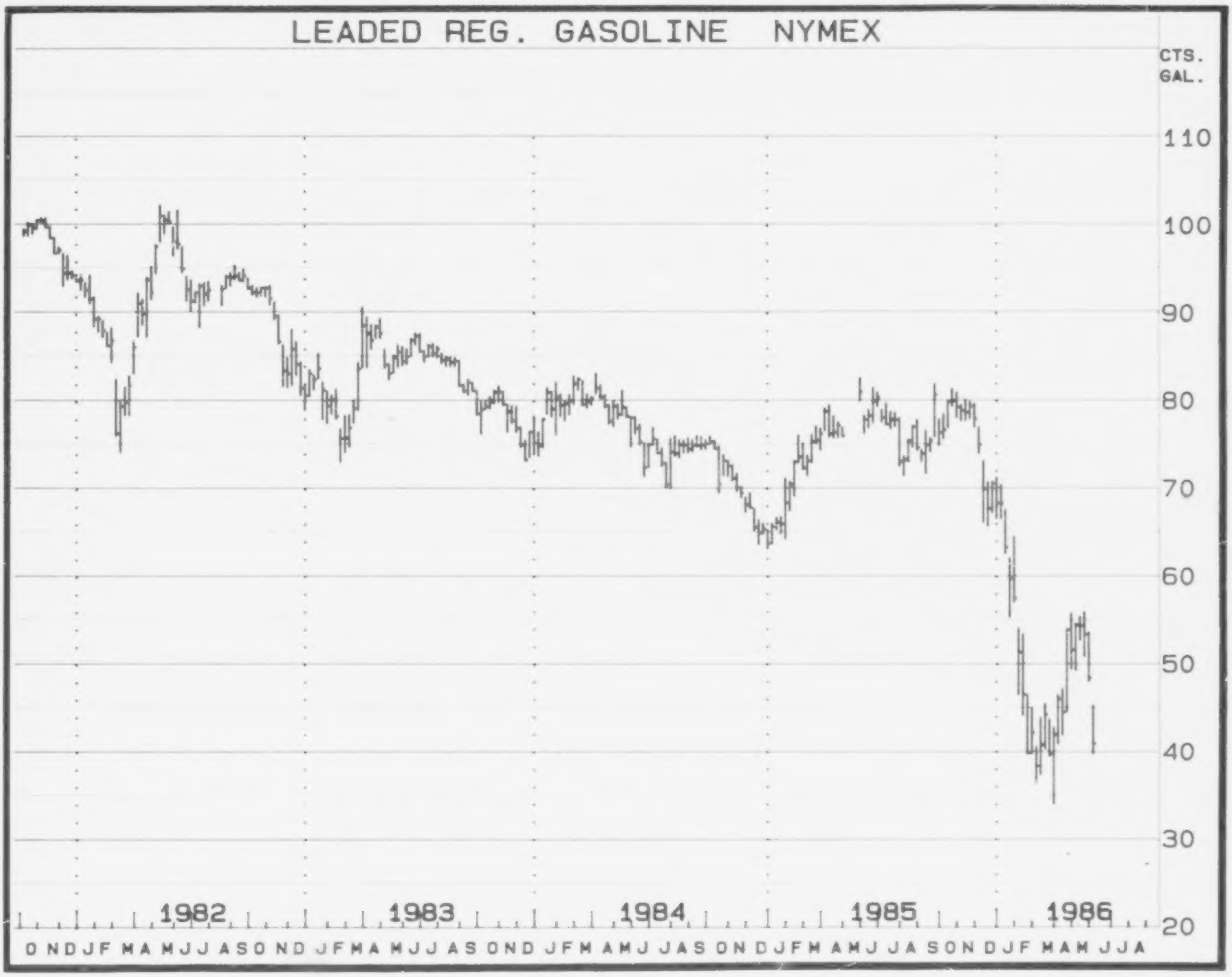
T.0575

High, Low & Closing Prices of December Unleaded Regular Gasoline Futures In N.Y. In ¢ Per Gallon

Year of Delivery		Yr. Prior to Delivery			Delivery Year											Life of Delivery Range
		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	
1985	High	—	—	—	—	—	77.00	78.00	72.45	71.60	71.65	72.65	75.10	80.50	81.00	81.00
	Low	—	—	—	—	—	72.75	72.00	70.75	67.65	69.45	70.00	68.70	73.80	78.25	67.65
	Close	—	—	—	—	—	77.00	72.00	71.25	70.90	70.70	71.60	74.50	80.20	79.00	—
1986	High	—	—	—	61.00	52.50	43.50	40.65								
	Low	—	—	—	55.10	40.80	34.00	34.56								
	Close	—	—	—	55.10	41.75	34.00	36.08								

Source: N.Y. Mercantile Exchange

T.0575A



Month End Open Interest of Unleaded Regular Gasoline Futures In New York In Contracts

Year	Jan	Feb	Mar.	Apr.	May	June	July	Aug.	Sept	Oct	Nov	Dec.
1984				FUTURES TRADING BEGAN DEC. 3, 1984								1,243
1985	2,429	1,464	3,411	4,977	4,406	4,923	5,685	4,599	3,910	4,921	3,922	3,150
1986	4,703	3,703	3,212	2,850								

Source: N.Y. Mercantile Exchange T.0576

Month End Open Interest of Leaded Regular Gasoline Futures in New York In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1982	1,228	970	1,051	1,334	2,694	3,232	2,668	2,713	3,803	4,503	3,887	4,732
1983	6,826	9,646	11,450	12,564	11,852	12,920	11,624	11,584	12,984	10,290	12,918	19,335
1984	20,248	18,212	18,013	14,455	15,423	15,523	11,988	11,747	10,391	7,826	7,966	9,230
1985	8,779	10,413	12,776	12,355	12,301	12,155	13,169	12,450	12,923	13,186	12,634	12,741
1986	14,836	14,353	18,477	22,147								

T.0576A

Gold

Output of gold worldwide in 1985 was estimated at 47 million troy ounces, roughly 2 percent more than in the year before. Nearly half (47 percent) of the total emanated from the Republic of South Africa, with the U.S.S.R. contributing another 19 percent. The global reserve base is thought to be 1.45 billion ounces, of which 800 million, or 55 percent of the total, are in South Africa. The world's estimated above-ground stock of gold, excluding that in industrial usage, amounts to about 2.6 billion ounces, of which 15 percent to 20 percent are by-product resources.

In the U.S. in 1985 an estimated 1.9 million ounces of gold were extracted from 180 lode mines, several dozen large placer mines, and hundreds of small lode and placer mines. However, fully 87 percent of total production came from just 25 mines, eight of which provided well over half of overall domestic output. Seven percent of total production was recovered as a by-product of processing base metals, chiefly copper. Refinery production from ores, concentrates and scrap combined came to 3.3 million ounces, the bulk (82 percent) of it from scrap. Imports for consumption—which excludes gold in fabricated items and that used in official monetary transactions—totaled 6.4 million ounces, compared with U.S. exports of 4 million ounces; imports of gold in 1985 rose about 7 percent over 1984, whereas exports fell nearly 20 percent on a year-over-year basis. More than half (56%) of all imports of gold came from Canada, supplemented by 9 percent from Uruguay and 6 percent from Switzerland. At year's end, commercial, industrial and futures-exchange stocks of gold combined numbered 2.8 million ounces, while another 262 million ounces were held by the U.S. Treasury; the latter stocks were valued, on the basis of the official price of $42.22 per ounce, at about $11 billion. Aggregate employment in mines and mills grew from 5,000 in 1984 to 6,500 in 1985, a jump of 30 percent, thanks in large part to expanded exploration and development of new mines, and the onset of production in more than a dozen newly-operational mines.

Consumption of gold in arts and industry during 1985 came to about 3 million ounces. Combining that figure with exports of 4 million ounces yields a total demand in the amount of 7 million ounces, compared with supply (production plus imports) of over 8 million ounces. That comparison goes far to explain why the average spot price of gold bullion during 1985, at $345 per ounce, was down some 4 percent from 1984. The price range for the year was rather wide, hitting its lowest point of $285 an ounce in February 1985 (when the U.S. dollar was exceptionally strong) and its high point of $341 in August. Similarly wide fluctuations occurred in the volume of futures trading: monthly volume in both January and March involved more than 95 million ounces, whereas in October volume was only 44 million ounces.

Projections early in the year put domestic mine output in 1986 at 2.6 million, up about 38 percent from 1985. Domestic consumption of gold was also expected to be higher than in 1985, to the tune of 23 percent. The Bureau of Mines forecast demand for gold rising, from a 1983 base, at an average annual rate of 2.4 percent through the rest of the 1980s.

Futures Markets

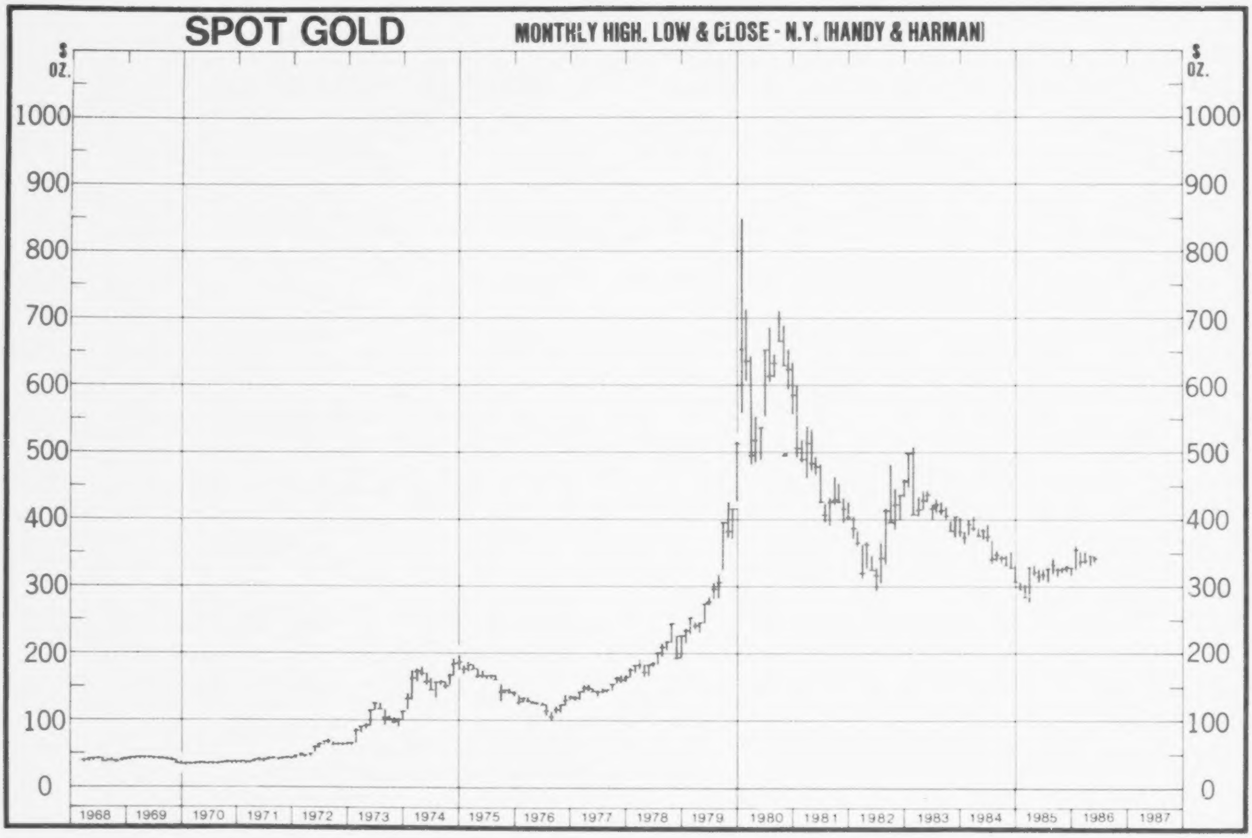
Gold futures are traded in the U.S. on New York's Commodity Exchange (COMEX), and the International Monetary Market (IMM) and the MidAmerica Exchange in Chicago. Futures trading in gold is also conducted in Winnipeg, Hong Kong, and Tokyo. Options on gold futures are also traded on COMEX.

World Mine Production of Gold In Thousands of Fine Ounces (Troy Ounces)

Year	Australia	Zaire (Congo)	Canada	China	Colombia	Ghana	India	Japan	Mexico	Nicaragua	Papua N. Guinea	Philippines	Zimbabwe	South Africa	United States	USSR[1]	Total World[1]
1972	755	141	2,079		188	724	106	243	146	112		607	502	29,245	1,450	6,900	44,843
1973	554	134	1,954		216	723	105	188	133	85		572	800	27,495	1,176	7,100	43,297
1974	513	131	1,698		265	614	101	140	134	83		538	800	24,388	1,127	7,300	40,124
1975	527	103	1,654		309	524	91	144	145	70		503	600	22,938	1,052	7,500	38,476
1976	503	91	1,692		300	532	101	138	163	76		501	387	22,936	1,048	7,700	39,024
1977	625	80	1,734		257	481	97	149	213	66	740	559	402	22,502	1,100	7,850	38,906
1978	648	76	1,735	150	246	402	89	145	202	74	751	587	399	22,649	999	8,000	39,057
1979	597	73	1,644	200	269	357	85	128	190	61	630	535	388	22,617	964	8,160	38,830
1980	548	41	1,627	225	510	353	79	102	176	60	452	644	368	21,669	970	8,300	39,179
1981	591	64	1,673	1,700	529	341	80	99	199	62	540	753	371	21,121	1,379	8,425	41,257
1982	867	62	2,081	1,800	473	331	72	104	214	54	564	834	426	21,355	1,466	8,550	43,083
1983[2]	984	148	2,363	1,850	436	280	70	101	198	46	582	812	453	21,847	1,957	8,600	44,882
1984[1]	1,200	80	2,614	1,900	735	260	68	104	205	34	835	773	470	21,905	2,059	8,650	46,035
1985[1]	1,700		2,700	1,900										22,200	1,944	8,700	47,000

[1] Estimated. [2] Preliminary. *Source: U.S. Bureau of Mines*

T.258



Salient U.S. Gold Statistics In Thousands of Troy Ounces

Year	Mine Production	Value Mil. $	Refinery Prod. New (Domestic)	Refinery Prod. Secondary[5]	Exports (Excl. coinage)	Imports[2] For Consumption	Stocks, Dec. 31 Treas. Dept.[6]	Stocks, Dec. 31 Futures Exch	Stocks, Dec. 31 Earmarked[7]	Stocks, Dec. 31 Industrial	Consumption Dental	Consumption Industrial[3]	Consumption Jewelry & Arts	Consumption Total	Price $ Per Troy Oz.[4]
1979	964	296.6	795	2,883	16,492	4,630	264.6	2.5	359.3	.9	646	1,406	2,688	4,785	307.50
1980	970	594.1	773	3,824	6,119	4,542	264.3	5.0	354.5	.9	341	1,287	1,505	3,215	612.56
1981	1,379	633.9	801	3,085	6,437	4,652	264.1	2.4	350.6	.6	314	1,210	1,730	3,276	459.64
1982	1,466	551.0	718	3,040	2,970	4,920	264.0	2.3	348.6	.8	358	1,102	1,954	3,423	375.91
1983	1,956	829.5	885	2,978	3,139	4,593	263.4	2.5	341.4	.6	360	1,032	1,665	3,061	424.00
1984[1]	2,059	742.5	747	3,031	4,981	7,869	262.8	2.4	337.9	.8	363	1,084	1,627	3,082	360.66

[1] Preliminary. [2] Old & new scrap. [3] Including space & defense. [4] Engelhard selling quotations. [5] Estimate. [6] Includes gold in Exchange Stabilization Fund. [7] Gold held for foreign & international official accounts at N.Y. Fed. Reserve Bank. *Source: Bureau of Mines* T.260

Commodity Exchange Inc. (COMEX) Depository Warehouse Stocks of Gold In Thousands of Ounces

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1979	2,604	2,566	2,540	2,501	2,286	2,443	2,700	2,480	2,509	2,512	2,281	2,277
1980	2,253	2,445	2,575	2,897	3,097	3,291	3,386	3,597	3,619	3,832	4,873	5,099
1981	4,814	4,570	4,192	3,897	3,513	3,585	3,417	3,258	2,887	2,776	2,605	2,494
1982	2,366	2,339	2,267	2,196	2,198	2,181	2,047	1,980	1,982	1,971	1,985	2,137
1983	2,247	2,621	2,754	2,645	2,636	2,723	2,630	2,648	2,570	2,538	2,500	2,485
1984	2,481	2,472	2,408	2,452	2,412	2,426	2,376	2,395	2,387	2,391	2,349	2,366
1985	2,308	2,308	2,273	2,109	2,136	2,142	2,133	2,107	2,119	2,083	2,099	2,105
1986	2,109	2,352	2,580									

Source: Commodity Exchange, Inc.—N.Y. T.263

High, Low & Closing Prices of December Gold Futures on COMEX In Dollars per Ounce

Year of Delivery		— Year Prior to Deliv. —			Delivery Year												Life of Delivery Range
		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1982	High	539.0	500.0	478.0	455.0	433.0	399.5	402.5	375.8	360.0	385.3	441.0	509.0	465.0	443.5	459.5	675.9
	Low	493.0	437.0	441.0	410.0	396.0	340.0	352.0	342.0	311.5	322.5	340.2	396.0	390.0	398.0	431.1	311.5
	Close	496.6	454.1	446.5	428.3	397.8	357.6	369.8	343.0	333.2	355.5	418.5	404.8	423.0	442.6	458.2	—
1983	High	503.0	486.0	505.5	553.0	553.5	467.5	472.0	472.5	442.8	455.0	441.0	429.0	408.8	408.8	404.0	554.7
	Low	433.0	437.5	470.0	486.5	453.4	431.5	444.5	432.0	414.0	423.0	418.5	401.0	378.0	373.0	372.0	366.7
	Close	465.0	486.4	489.0	551.7	453.4	442.4	453.5	432.6	432.3	427.4	424.8	407.8	378.8	403.0	379.0	—
1984	High	450.0	452.0	443.5	419.7	434.0	439.5	416.5	414.0	422.0	389.8	369.0	356.3	355.8	353.5	332.6	608.0
	Low	419.5	412.1	411.0	393.0	405.0	414.0	399.5	392.0	385.5	345.0	349.0	341.6	333.5	325.0	304.7	304.7
	Close	411.1	445.1	421.4	404.9	426.9	416.4	401.1	410.4	391.6	350.3	358.0	351.3	336.0	329.1	312.1	—
1985	High	398.0	389.0	364.5	332.0	327.0	357.0	353.0	342.3	339.0	339.0	350.2	336.5	335.7	333.4	328.2	489.5
	Low	370.0	355.0	330.0	317.8	301.5	306.0	328.0	319.0	320.5	315.5	326.5	318.2	324.9	322.1	313.0	301.5
	Close	372.2	360.7	333.9	325.2	307.5	349.2	329.9	327.4	325.3	335.2	339.8	327.1	326.7	322.9	326.7	—
1986	High	363.6	358.5	352.3	392.0	375.0											
	Low	350.5	347.5	336.5	348.5	347.5											
	Close	352.4	348.5	351.4	369.7	356.6											

Source: Commodity Exchange, Inc. of N.Y. (COMEX) T.266

Gold Total Open Interest at New York (COMEX) & Chicago IMM[1] In Thousands of Contracts

Year	At New York (COMEX)												At Chicago (IMM)[1]			
	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1	Jan. 1	Apr. 1	July 1	Oct. 1
1981	295.5	211.4	202.5	180.8	187.9	198.6	214.7	215.9	203.1	198.6	202.6	187.3	88.6	54.8	78.5	56.5
1982	175.6	153.0	145.8	134.8	134.6	131.2	139.1	119.0	119.0	110.6	112.6	121.8	33.1	18.7	14.1	8.0
1983	127.7	120.4	123.7	91.6	105.2	109.8	113.4	104.7	114.0	123.4	134.9	126.6	7.9	5.2	4.9	3.3
1984	139.7	121.6	140.8	120.8	134.3	147.0	134.9	132.2	139.4	141.7	161.0	158.2	1.4	.6	.2	.2
1985	170.3	135.0	145.7	119.2	130.2	126.0	131.3	122.5	135.4	122.8	123.1	128.3	2.4	1.9	2.4	2.2
1986	132.8	141.3	144.4										1.3			

[1] Beginning Jan. 1, 1985 Data is for "Kilo" gold at CBT. *Source: Commodity Exch., Inc. of N.Y. (COMEX), International Monetary Market of Chicago (IMM)* & Chicago Board of Trade. T.261

Total Volume of Trading of Gold Futures at New York (COMEX) In Thousands of Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1981	943.6	708.7	994.5	695.7	782.6	780.1	836.5	862.1	1,063.4	769.0	886.8	1,050.5	10,374
1982	922.4	669.0	1,264.7	966.3	708.7	943.3	1,153.5	1,182.7	1,224.7	1,074.1	1,044.2	1,116.6	12,289
1983	1,369.0	1,047.4	1,087.6	712.7	872.2	839.9	818.6	684.1	694.1	832.7	780.5	643.8	10,383
1984	749.3	786.5	829.8	563.2	833.7	737.8	1,006.9	791.3	753.2	671.3	814.9	577.7	9,122
1985	950.3	589.9	962.8	599.6	752.6	443.6	738.1	657.7	615.8	438.7	479.1	541.1	7,769
1986	1,126.2	574.2											

Source: Commodity Exchange, Inc.—N.Y. (COMEX) T.265

U.S. Mine Production of Recoverable Gold In Thousands of Troy Ounces

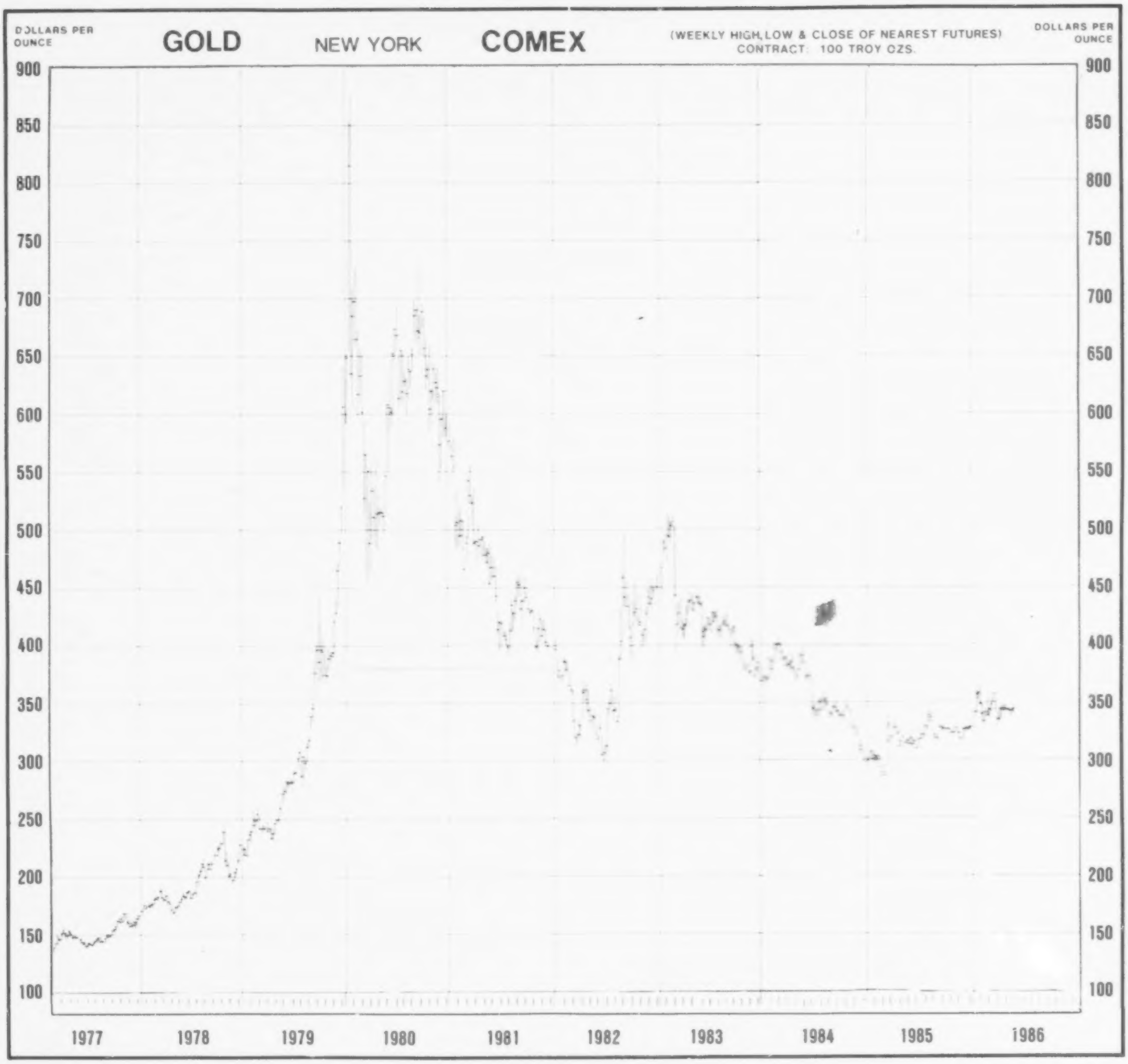
Year	Alaska	Arizona	California	Colorado	Idaho	Montana	Nevada	New Mexico	South Dakota	Utah	Other States	Total U.S.
1981	26.5	100.3	6.3	51.1	[2]	54.3	524.8	65.7	278.2	227.7	44.3	1,379.2
1982	30.5	61.1	10.5	64.6	[2]	75.2	757.1	[2]	185.0	174.9	106.8	1,465.7
1983	39.5	62.0	38.4	63.1	[2]	161.4	914.5	[2]	309.8	238.5	129.2	1,956.4
1984	23.2	51.5	85.9	60.0	[2]	181.2	997.5	[2]	310.5	[2]	349.0	2,058.8
1985[1]	[2]	43.5	180.0	25.5	[2]	145.9	947.2	[2]	328.1	[2]	273.8	1,943.9

[1] Preliminary. [2] Included in "OTHER STATES." *Source: Bureau of Mines* T.262

U.S. Monetary Stock of Gold at End of Month In Billions of Dollars

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1982	11.151	11.150	11.150	11.149	11.149	11.149	11.149	11.148	11.148	11.148	11.148	11.148
1983	11.144	11.139	11.138	11.135	11.132	11.131	11.131	11.128	11.128	11.126	11.123	11.121
1984	11.120	11.116	11.111	11.109	11.104	11.100	11.099	11.098	11.097	11.096	11.096	11.096
1985	11.095	11.093	11.093	11.091	11.091	11.090	11.090	11.090	11.090	11.090	11.090	11.090
1986												

Source: Federal Reserve Board T.264



Monthly Average Gold Price (Handy & Harman[3] at New York) $ Per Troy Oz.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1977	132.9	136.7	148.7	149.7	147.2	141.5	144.0	145.5	150.1	159.4	162.8	161.1	148.31
1978	173.7	178.6	184.1	175.8	176.5	184.1	189.3	206.3	212.4	227.7	206.2	208.1	193.55
1979[3]	227.5	246.1	242.2	238.9	257.4	279.2	295.3	301.6	357.0	392.7	392.2	461.0	307.59
1980	675.4	665.5	553.6	516.8	513.9	600.7	643.3	627.5	675.8	660.3	622.5	594.8	612.51
1981	557.4	500.3	498.8	494.9	479.8	460.8	408.8	411.0	444.1	437.2	413.7	408.7	459.61
1982	384.1	374.1	330.3	350.0	334.4	315.0	340.1	366.0	435.6	421.8	414.1	445.4	375.94
1983	479.9	490.4	419.7	432.2	437.6	412.8	423.1	416.3	411.5	393.2	382.3	387.1	423.83
1984	370.9	386.0	394.4	381.7	377.3	377.7	346.4	347.7	340.9	340.1	340.9	319.0	360.23
1985[2]	303.2	299.2	304.3	325.3	316.5	316.9	318.2	330.5	323.2	326.2	325.6	322.8	317.66
1986[1]	345.8	339.0											

[1] Estimate. [2] Preliminary. [3] Prices prior to 1979 are for Engelhard Industries (unfabricated). *Source: U.S. Bureau of Mines; American Metal Market, Handy & Harman*

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Grain Sorghum

U.S. sorghum beginning stocks for the 1985/86 marketing year (October–September) totaled 271 million bushels, according to USDA's March 1986 supply/demand report. U.S. production in 1985 rose to a record of 1.11 billion bushels, 28 percent higher than the 1984 crop. The 16.7 million acres harvested for grain in 1985 were up from 15.4 million in 1984, and the average yield of 66.7 bushels per acre was 10 bushels above the yield in 1984.

Total domestic feed use was expected to continue to increase. In the 1985/86 crop year, feed use was expected to be 575 million bushels.

Higher-than-expected exports in the summer quarter of 1985, coupled with increased feed use, left carry-in stocks for 1985/86 at 271 million bushels. Although USDA expects sorghum exports to remain fairly strong in 1985/86, especially to several South American countries and parts of Asia, exports were projected to decline to 250 million bushels from 299 million exported in 1984/85. This decline, combined with the record-high production in 1985/86, would leave ending stocks for this marketing year 50 percent higher than last year. Ending stocks for 1985/86 were expected at 539 million bushels, according to USDA's March 1986 report.

Total world ending stocks of sorghum were expected to rise by nearly 7 million tonnes in 1985/86, with nearly all of that increase a result of production in the U.S. In February, USDA placed 1985/86 world ending stocks at 17.3 million tonnes.

U.S. sorghum stocks in all positions, as of January 1, 1986, totaled 990 million bushels, up from 725 million a year ago.

USDA's 1986 prospective plantings report as of March 1, 1986 put sorghum intentions at 15.9 million acres, down 13 percent from acreage planted in 1985. Acreage declines were expected in each major producing state. Texas acres were anticipated to drop 16 percent to 3.6 million acres, and acreage in Kansas was expected to decline 6 percent to 4.5 million acres.

U.S. Government Price Support

For the 1986 crop, the loan rate is at $1.82, with the target price remaining at $2.88. USDA's projected deficiency payment is 98 cents per bushel, with payments subject to a 4.3 percent reduction under the Gramm-Rudman-Hollings Act.

World Sorghum Supply and Demand In Millions of Metric Tons

	Exports				Imports				Utilization					Stocks[3]		
Crop Year	Argentina	Non-U.S.	U.S.	Total Exports	Japan	U.S.S.R.	Total Imports	Total Production	China	Japan	Mexico	U.S.S.R.	Total Utilization	Non-U.S.	U.S.	Total Stocks
1981–2	5.2	7.4	6.3	13.7	3.0	2.9	13.7	70.2	6.6	3.6	6.8	3.4	66.0	4.8	7.5	12.3
1982–3	4.9	6.2	5.4	11.6	2.7	2.3	11.6	65.1	6.9	2.8	6.1	2.9	63.8	3.4	10.2	13.6
1983–4	4.8	6.9	6.2	13.1	4.2	1.9	13.1	58.9	8.3	3.7	6.3	2.0	62.2	3.9	6.4	10.3
1984–5[1]	3.4	5.8	7.6	13.4	4.6	1.5	13.4	66.0	7.2	4.7	6.4	1.5	65.7	3.8	6.9	10.6
1985–6[2]	2.2	4.6	6.3	11.0	5.0	.6	11.0	73.5	6.0	4.9	6.2	.9	66.3	4.2	13.7	17.9

[1] Preliminary. [2] Estimate. [3] End of Crop Year Season. *Source: Foreign Agricultural Service, U.S.D.A.* T.272a

Salient Statistics of Grain Sorghum in the United States

		For Grain					For Silage			For Forage	Sorghum		Feed Grains U.S. Exports Under Gov't Programs	
Crop Year	Acreage Planted[2] for All Purposes — 1,000 Acres	Acreage Harv. — 1,000 Acres	Production 1,000 Bushels	Yield Per Harv. Acre Bushels	Price Cents Per Bushel	Produc. Value Million Dollars	Acreage Harv. 1,000 Acres	Production 1,000 Tons	Yield Per Harv. Acre Tons	Acreage Harv. 1,000 Acres	Used on Farms where Produced (In Mil. Bushels)	Sold (In Mil. Bushels)	Mutual Security (AID) (In Ths. Metric Tons)	Total All (In Ths. Metric Tons)
1980–1	15,644	12,513	579,343	46.3	294	1,697	734	7,003	9.6	1,412	195.5	392.5	224	1,129
1981–2	16,020	13,677	875,835	64.0	238	2,079	786	9,447	12.1	1,024			444	1,244
1982–3	16,138	14,137	835,083	59.1	252	2,091	603	7,403	12.3	914			323	732
1983–4	11,880	10,001	487,521	48.7	284	1,382	639	6,572	10.3	747			392	848
1984–5[1]	17,254	15,355	866,241	56.4	237	2,039	609	6,472	10.6	679			793	1,395
1985–6[1]	18,285	16,672	1,112,571	66.7			515	6,261	12.2	796				

[1] Preliminary. [2] Grain and sweet sorghums for all uses including sirup. *Source: Crop Reporting Board, U.S.D.A.* T.267

Production of All Sorghum for Grain in the United States, by States In Thousands of Bushels

Year	Iowa	Arizona	California	Colorado	Kansas	Missouri	Nebraska	New Mexico	No. Carolina	Oklahoma	South Dakota	Texas	Arkansas
1980	1,330	1,950	11,096	12,250	149,640	41,280	121,800	10,280	2,232	16,320	10,725	181,700	5,887
1981	1,600	2,158	8,880	12,775	238,520	75,200	164,800	12,240	4,134	22,050	19,565	273,420	16,986
1982	885	1,185	5,390	10,230	207,700	63,910	128,480	13,160	3,000	20,400	17,250	305,250	15,780
1983	300	988	3,645	6,960	121,690	40,020	61,000	6,300	1,386	11,880	13,630	157,500	17,600
1984	660	1,360	3,936	15,910	216,750	91,770	121,600	15,400	3,025	18,000	18,565	209,350	42,480
1985[1]	—	1,296	2,988	11,200	289,800	117,030	153,600	13,920	3,224	22,500	15,000	241,900	66,240

[1] Preliminary, December estimate. *Source: Crop Reporting Board, U.S.D.A.* T.268

GRAIN SORGHUM

U.S. Grain Sorghum Quarterly Supply and Disappearance In Millions of Bushels

Year & Period Beginning Oct. 1	Supply				Disappearance							Ending Stocks		
					Domestic Use									
	Begin. Stocks	Production	Imports	Total Supply	Food	Alc. Beverages	Seed	Feed & Resid.	Total	Exports	Total	Gov't. Owned[1]	Privately Owned[2]	Total Stocks
1983-4	400.2	487.5	0.1	887.8	4.2	3.7	2.1	380.6	390.6	246.4	637.0	98.8	152.0	250.8
Oct.-Dec.	400.2	487.5	0.1	887.7	1.3	1.1	—	168.4	170.8	62.1	232.9	189.3	465.5	654.8
Jan.-Mar.	654.8	—	—	654.8	1.3	.7	.2	105.2	107.4	77.8	185.2	175.3	294.3	469.6
Apr.-May	469.6	—	—	469.6	.3	.6	.8	69.5	71.2	29.5	100.7	137.4	231.5	368.9
June-Sept.	368.9	—	—	369.0	1.3	1.3	1.1	37.5	41.2	77.0	118.2	98.8	152.0	250.8
1984-5[3]	250.8	866.2	0.1	1,117	17.6		2.5	526.6	546.7	299.4	846.1	129.1	141.9	271.0
Oct.-Dec.	250.8	866.2	0.1	1,117	1.4	4.0	—	302.0	307.4	84.6	392.0	105.7	619.4	725.1
Jan.-Mar.	725.1	—	—	725.1	4.2		.2	151.5	155.9	87.9	243.8	134.7	346.6	481.3
Apr.-May	481.3	—	—	481.3	2.5		1.6	78.8	82.9	37.6	120.5	135.6	225.2	360.8
June-Sept.	360.8	—	—	360.8	5.5		.7	-5.7	.5	89.8	-89.8	129.1	141.9	271.0
1985-6[5]	271.0	1,113	—	1,384	19.7			575.0	594.7	275.0	869.7			514.0
Oct.-Dec.	271.0	1,113	[4]	1,384	5.4			335.4	340.8	52.9	393.7			

[1] Uncommitted inventory. [2] Includes quantity under loan & farmer-owned reserve. [3] Preliminary. [4] Less than 50,000 bushels. [5] Estimate. *Source: Commodity Economics Division, U.S.D.A.* T.269

Average Price of Sorghum Grain, No. 2, Yellow at Kansas City In Dollars Per 100 Pounds (Cwt.)

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average
1978-9	3.61	3.67	3.64	3.71	3.73	3.77	3.81	3.92	4.41	4.89	4.44	4.34	4.00
1979-0	4.42	4.41	4.57	4.21	4.35	4.20	4.15	4.31	4.49	5.36	5.71	5.61	4.65
1980-1	5.65	5.91	5.82	5.79	5.52	5.46	5.49	5.38	5.23	5.29	4.58	4.16	5.36
1981-2	4.14	4.14	4.27	4.44	4.26	4.28	4.45	4.48	4.50	4.38	4.02	4.06	4.29
1982-3	3.85	4.25	4.37	4.37	4.54	5.08	5.30	5.37	5.37	5.32	5.69	5.55	4.92
1983-4	5.37	5.25	5.16	5.09	5.03	5.40	5.36	5.39	5.40	4.95	4.74	4.46	5.13
1984-5[1]	4.25	4.28	4.32	4.48	4.33	4.58	4.76	4.74	4.74	4.50	4.96	3.56	4.38
1985-6[1]	3.62	3.75	3.97	3.95									

[1] Preliminary. *Source: Economic Research Service, U.S.D.A.* T.271

U.S. Exports of Grain Sorghum, by Country of Destination In Thousands of Metric Tons

Yr. Beg. October	Poland	Belg. & Luxem.	Portugal	Spain	W. Germany	India	Venezuela	Israel	Japan	Senegal	Netherlands	Norway	Mexico	South Africa	Total All Exports
1978-9	136.4	—			.8	—		689.4	1,981.1	1.2	37.8	141.5	1,124.0	—	5,247.1
1979-0	107.5	.3			.3	—		348.0	3,972.7	12.5	69.1	232.8	2,255.2	—	8,199.2
1980-1	—	60.0			—	—	501	449.0	2,725.4	13.3	11.5	198.9	2,646.3	.3	7,701.6
1981-2	—	.4		790	.4	—	713	368.0	2,436.9	1.9	.4	201.2	544.2	—	6,289.8
1982-3	—	0		105		—	243	340.7	741.0	13.9	0	44.6	3,260.3	.2	5,402.6
1983-4[1]	—	—		465		—	206	574	1,504.8	145.0	.2	0	2,758.4	.2	6,226.0
1984-5[1]				45			1,093	587	2,726				1,958		6,996

[1] Preliminary. *Source: Grain & Feed Division, U.S.D.A.* T.270

Grain Sorghum Price Support Program & Market Prices

Year Beginning October	Price Support Operations (Million Cwt.)						No. 2 Yellow ($ Cwt.)			
	Put Under Price Support				$ Per Cwt.					
	Quantity	% of Production	Acuired By CCC	Owned by CCC Sept. 30	Support Loan	Target Price	Kansas City	Fort Worth	Los Angeles	Gulf Ports
1978-9	51.6	12.3	17.1	24.4	3.39	4.07	4.00	4.40	5.44	4.65
1979-0	35.8	7.9	1.3	24.6	3.57	4.18	4.65	4.97	6.32	5.54
1980-1	18.1	5.6	.1	21.4	3.82	4.46	5.36	5.86	7.31	6.16
1981-2	155.0	31.5	6.5	24.0	4.07	4.55	4.29	4.85	6.18	4.97
1982-3	134.5	28.8	41.0	92.4	4.32	4.64	4.96	5.30	6.56	5.55
1983-4	7.6	2.8	1.2	50.0	4.50	4.86	5.13	5.48	6.69	5.65
1984-5[1]	43.0	8.8	7.0	78.0	4.32	5.14	4.38	4.95		4.81
1984-5[2]					4.32	5.14	3.82	4.41		4.32

[1] Preliminary. [2] Estimate. *Source: Economic Research Service, U.S.D.A.* T.272

Hay

U.S. production of hay in the 1985/86 (May–April) crop year was estimated by USDA at 149 million tons, down slightly from 1984/85's record-high production of 150.6 tons. Average yield per acre was estimated on a par with last year at 2.46, and harvested acreage declined to 60.6 million acres.

U.S. beginning stocks for 1985/86 were up about 33 percent from the previous year. With disappearance expected to decline to about 140 million tons from 143.8 million in 1984/85, ending stocks were expected to grow to 35.9 million tons versus ending stocks in 1984/85 of 26.9 million.

U.S. production only declined marginally in 1985/86, but production was reduced sharply in the Mountain and Northwest states by drought.

Monthly hay farm prices started the marketing year at $68.90 per ton in May, and the farm price was quoted at $66.00 in November of 1985. USDA estimated the 1984/85 season average price at $73.80, and expected farm prices to remain at around the mid-$60 area in 1985/86.

Demand was likely to decline in 1985/86 due to fewer roughage-consuming animal units (RCAUs) compared to a year ago.

USDA's 1986 prospective plantings report as of March 1 put hay acreage for harvest at 60.9 million acres, up fractionally from 60.6 million acres for harvest in 1985.

Salient Statistics of All Hay in the United States

			Million Tons			Farm Disposition		Per Animal Unit In Tons					Retail Price Paid by Farmers April 15 — Dollars Per Cwt.		
Year Beginning May	Acres Harvested 1,000 Acres	Yield Per Acre Tons	Production	Carryover May 1	Disappearance	Kept on Farms	Sold	Supply	Disappearance	Animal Units Fed[2] Millions	Farm Price[3] $ Per Ton	Farm Produc. Value Million $	Alfalfa Seed (certified)	Timothy Seed	Red Clover Seed
1981–2	59,599	2.39	142.5	25.4	142.9			1.83	1.56	91.8	67.30	9,590	218.00	98.20	117.00
1982–3	59,812	2.50	149.2	25.0	146.1			1.93	1.62	90.2	69.30	10,340	202.00	62.00	126.00
1983–4	59,717	2.36	140.8	28.1	148.8			1.89	1.67	89.3	75.80	10,673	208.00	69.20	160.00
1984–5[1]	61,445	2.45	150.6	20.1	143.8			1.99	1.67	85.9	72.70	10,949			
1985–6[1]	60,553	2.46	149.0	26.9				2.09		84.1	69.00	10,281			

[1] Preliminary. [2] Roughage-consuming animal units fed annually. [3] Price of hay sold baled, for year beginning July. *Source: Economic Research Service, U.S.D.A.* T.275

Production of All Hay in the United States by Important States In Millions of Tons

Year	Calif.	Idaho	Ill.	Iowa	Mich.	Minn.	Mo.	No. Dak.	Nebr.	N.Y.	Ohio	Pa.	So. Dak.	Wis.	Texas
1981	7.9	4.5	3.5	8.2	3.9	8.2	6.8	4.8	7.0	5.3	3.5	4.5	5.8	11.1	7.0
1982	7.7	4.4	3.6	7.9	4.3	8.3	6.1	4.9	7.9	5.3	3.5	4.8	7.6	12.8	6.7
1983	7.4	4.9	2.7	5.9	4.5	8.3	5.4	4.5	7.6	5.3	3.2	4.6	7.6	12.2	7.5
1984	7.9	4.7	3.9	7.9	5.3	8.4	6.3	4.5	7.7	5.4	3.8	5.1	8.1	12.8	5.4
1985[1]	8.0	4.1	4.1	7.1	5.7	8.0	6.5	3.8	6.8	5.3	4.6	5.3	4.8	11.1	8.2

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.277

U.S. Types of Hay Production & Farm Stocks In Millions of Short Tons

	Production					Farm Stocks	
Year	Alfalfa & Mixtures	All Other	All Hay	Corn for Silage[1]	Sorghum[1] Silage	Jan. 1	May 1
1981	83.8	59.4	142.5	117.9	9.4	91.7	25.4
1982	88.4	60.9	149.2	117.8	7.4	99.2	25.0
1983	82.2	58.6	140.8	96.3	6.6	104.0	28.1
1984	90.1	60.5	150.6	104.6	6.5	89.3	20.1
1985[2]	85.3	63.7	149.0	102.6	6.3	100.6	26.9
1986[2]						99.0	

[1] Not included in all tame hay. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.276

Average Price Received by Farmers for All Hay (Baled) on the 15th of Month In Dollars Per Ton

Year	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Average[1]
1981–2	75.30	66.90	64.00	63.90	62.70	64.80	65.40	65.70	67.90	69.90	69.50	73.30	67.30
1982–3	77.50	69.60	66.10	65.00	66.80	67.10	68.70	68.60	70.30	73.20	69.90	74.00	69.30
1983–4	78.10	72.70	71.20	71.20	74.70	76.80	75.10	76.70	76.60	78.70	79.40	79.80	75.80
1984–5[2]	82.50	76.10	72.40	70.40	70.70	73.10	71.40	73.40	73.00	73.10	72.20	72.80	72.70
1985–6[2]	77.90	71.80	68.80	66.90	67.10	66.00	66.00	67.20	67.80	67.30	68.00		

[1] Weighted average by sales. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.278

Heating Oil

More than 32 million barrels of distillate fuel oil were produced in the U.S. during 1985, about the same as in 1984. Imports in 1985 added another 2.4 million barrels, as against 3.3 million the year before. Stocks were drawn down by about 560,000 barrels, whereas in 1984 stocks increased to the tune of 684,000 barrels. About 800,000 barrels were exported in 1985 versus 600,000 the year earlier. Total product supplied in 1985 amounted, therefore, to 34.3 million barrels, roughly one-half of one percent more than in 1984. The ending stock on hand in December 1985 was 144 million barrels, down 17 million from December 1984.

Consumption of petroleum by the residential and commercial sector rose in 1985 for the fourth consecutive year. Nearly 2.6 quadrillion (10 to the 15th power) Btu were consumed in 1985, up 0.6 percent from the prior year and up 4.0 percent from 1982—which was the low point of the fall in consumption that had begun in 1977. The rise in demand in 1985, despite slightly increased supply, resulted in a rise in price of No. 2 fuel oil to consumers, from an average of 87 cents per gallon in January to 92.3 cents in December. Even so, the average price for the year was 84.8 cents per gallon, down nearly 7.5 percent from the comparable figure for 1984. Similarly, although the average nationwide sales price of No. 2 distillate to residences rose from $1.049 in January to $1.104 in December, the average for the year was $1.053 per gallon, down 3.5 percent from 1984's yearly average of $1.091. There were sporadic periods of supply tightness in heating oil due to spells of severe winter weather and logistical problems, but the generally mild winter in major Northern Hemisphere oil-consuming countries held consumption in check.

The drastic decline in heating-oil prices that began in late 1985 and continued into early 1986 was significantly influenced by the failure of OPEC members and non-OPEC oil producing countries, particularly the United Kingdom and Norway, to curtail production in an effort to stabilize prices. U.S. inventories of distillate at the end of the first quarter of 1986 were about 14 percent below average for the date. However, price movement in 1986 was expected to be heavily influenced by continued efforts of oil-producing nations to boost prices.

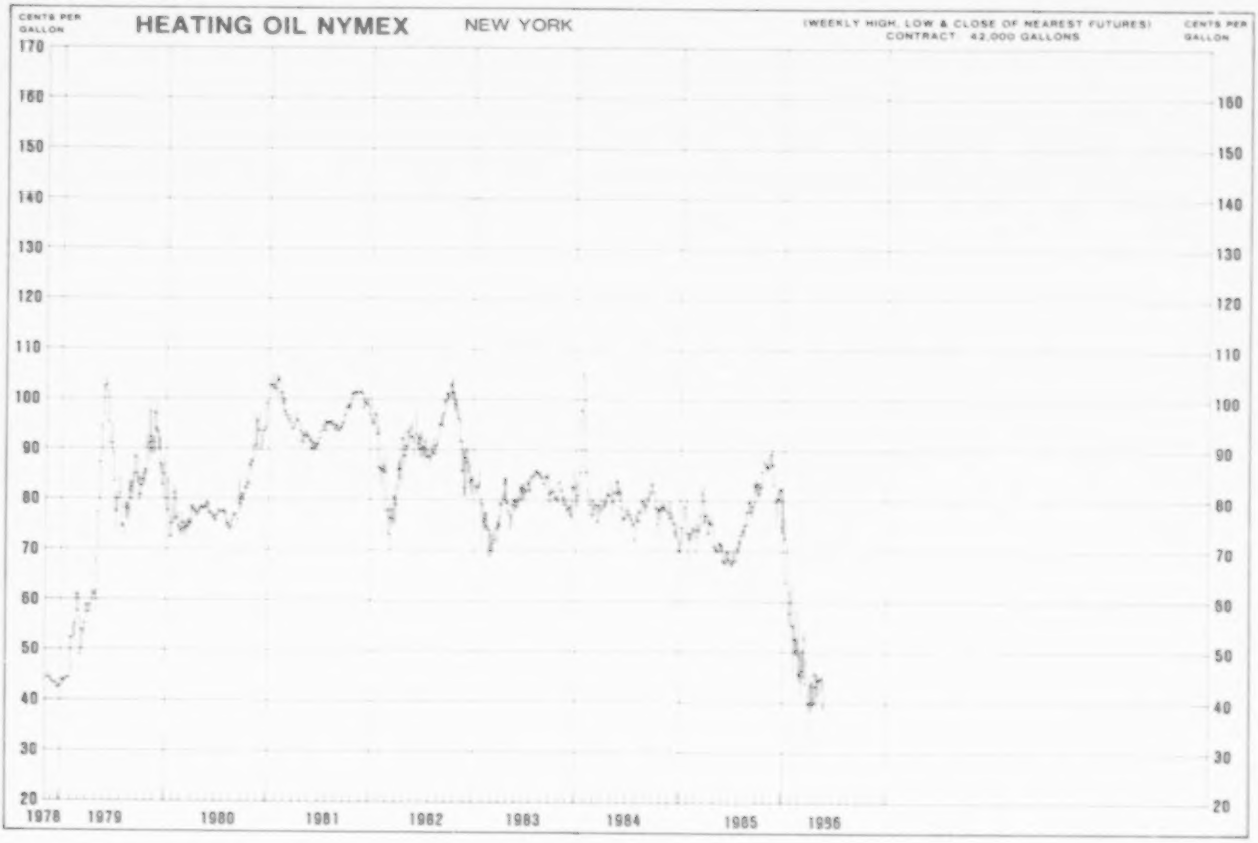
Futures Markets

Heating oil futures contracts are actively traded on the New York Mercantile Exchange (NYMEX). Gas-oil (heating oil) futures are traded on the International Petroleum Exchange (IPE) in London.

High, Low & Closing Prices of January Heating Oil Futures[1] in N.Y. In Cents per Gallon

Year of Delivery		Year Prior to Delivery[2]												Life of Delivery Range
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.[2]	
1981	High	—	—	—	94.00	93.25	91.00	86.50	82.00	87.50	90.25	99.00	97.25	99.00
	Low	—	—	—	88.00	90.25	85.90	81.50	78.45	79.00	83.15	88.50	89.25	78.45
	Close	—	—	—	92.50	91.00	86.60	81.55	81.12	84.55	89.50	95.62	96.90	—
1982	High	—	114.00	113.10	110.70	103.40	101.10	103.75	103.05	99.35	102.35	102.85	101.75	114.00
	Low	—	113.75	109.50	101.00	100.10	97.00	99.35	98.10	96.70	99.00	101.50	96.95	96.70
	Close	—	114.50	109.50	102.00	100.95	99.90	102.35	98.19	98.89	102.06	101.78	97.10	—
1983	High	—	—	85.00	95.75	100.40	98.75	93.60	96.65	101.95	104.20	99.20	90.60	104.20
	Low	—	—	82.00	85.50	94.00	90.61	89.25	90.70	95.55	97.10	84.20	79.81	79.81
	Close	—	—	85.00	94.40	97.00	91.08	90.80	96.30	99.79	98.29	86.52	82.81	—
1984	High	—	—	75.25	84.25	83.75	87.00	88.90	90.15	87.55	84.15	84.10	85.55	90.15
	Low	—	—	68.70	78.50	79.25	81.80	85.25	86.30	82.00	80.20	77.10	75.80	68.70
	Close	—	—	74.60	82.49	81.80	86.20	88.90	86.52	82.50	82.16	77.44	84.24	—
1985	High	—	—	83.75	84.40	87.45	87.40	83.25	84.05	86.10	85.45	81.05	79.25	87.45
	Low	—	—	83.15	82.30	82.20	81.75	76.05	76.90	80.80	75.75	74.75	72.25	72.25
	Close	—	—	83.75	83.00	86.87	83.00	76.30	82.55	84.80	79.98	76.61	72.40	—
1986	High	—	—	76.90	79.10	76.50	75.50	74.85	79.35	83.50	88.25	90.75	87.45	90.75
	Low	—	—	76.70	75.50	74.10	70.00	70.35	73.15	76.55	80.30	85.15	74.80	70.00
	Close	—	—	76.10	76.00	76.25	71.40	73.55	79.35	82.49	87.52	87.07	86.55	—
1987	High	57.60	54.00	46.15										
	Low	56.50	44.50	37.60										
	Close	56.50	44.50	37.60										

[1] No. 2 heating oil. [2] Contract expires the last business day of the previous calendar month quoted. *Source: N.Y. Mercantile Exchange* T.281



Month End Open Interest of Heating Oil[1] Futures in New York In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1979	327	200	118	299	370	485	1,165	1,280	1,894	1,952	2,221	1,973
1980	2,186	2,590	2,032	2,324	2,622	2,948	3,286	5,889	8,365	11,884	13,519	11,556
1981	11,792	12,040	13,256	14,893	17,919	16,822	19,220	28,102	36,996	35,519	33,517	31,585
1982	22,042	15,655	21,121	18,502	19,248	21,277	21,676	20,815	22,500	29,614	24,486	21,848
1983	19,642	23,307	18,980	22,868	27,797	29,320	34,414	32,276	37,856	36,164	36,230	30,916
1984	32,596	18,900	17,738	16,617	18,343	18,109	19,813	20,290	28,995	27,200	26,798	25,371
1985	19,122	16,552	17,351	15,796	17,660	19,698	22,993	25,731	30,127	33,438	36,793	31,172
1986	29,066	31,685	33,377	33,760								

[1] No. 2 heating oil. *Source: N.Y. Mercantile Exchange* T.279

Volume of Trading of Heating Oil Futures[1] in New York In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	365	515	182	369	502	1,377	2,156	2,205	2,847	5,895	9,371	8,010	33,804
1980	8,512	8,427	5,146	4,798	3,421	5,923	6,074	11,564	27,430	40,525	53,098	63,366	238,284
1981	67,368	58,514	55,299	65,350	58,933	76,580	86,394	100,102	99,790	121,455	78,972	126,749	995,532
1982	165,079	148,794	176,373	146,821	98,440	135,181	107,102	118,496	120,830	167,439	177,832	183,139	1,745,526
1983	153,864	112,649	137,237	121,300	163,923	149,138	138,706	140,671	187,283	169,271	200,400	193,877	1,868,322
1984	254,788	209,802	144,326	144,041	161,689	144,182	120,668	153,913	137,011	281,183	182,005	163,938	2,091,546
1985	286,264	149,403	162,503	137,064	122,699	133,339	148,117	157,552	202,785	246,558	219,126	241,848	2,207,258
1986	274,057	221,156	214,501	207,387									

[1] No. 2 heating oil. *Source: N.Y. Mercantile Exchange* T.280

HEATING OIL

U.S. Gross Input to Crude Oil Distillation Units In Millions of 42-Gallon Barrels

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1974	373.2	326.5	368.7	371.6	400.4	398.8	414.1	409.1	380.0	398.3	386.0	404.9	4,632
1975	395.8	353.9	384.3	368.3	384.7	385.6	414.9	416.9	401.5	397.3	394.6	411.4	4,709
1976	403.6	388 1	412.2	396.4	413.4	427.7	446.1	446.3	425.3	428.0	437.3	457.0	5,081
1977	453.4	425.5	456.2	438.3	463.1	457.9	471.1	465.9	457.8	466.3	449.2	463.5	5,468
1978	450.1	401.4	448.3	426.6	472.4	451.5	470.5	483.8	462.2	475.9	470.6	487.6	5,501
1979	467.7	409.3	449.6	445.2	457.1	453.6	477.9	474.0	447.1	477.9	447.0	472.4	5,459
1980	453.6	421.7	433.8	413.5	423.4	421.7	422.5	412.3	408.2	402.9	403.4	432.4	5,049
1981	418.3	369.6	391.4	368.5	389.3	381.9	389.6	409.2	382.2	382.9	377.5	393.8	4,654
1982	371.5	325.1	361.4	353.1	379.1	388.1	399.6	378.0	376.7	376.8	364.4	368.8	4,443
1983	355.4	307.8	344.8	352.0	374.4	378.3	390.9	383.1	381.9	371.1	366.8	354.1	4,361
1984	364.8	356.0	374.2	362.3	385.5	372.5	377.5	388.6	374.2	376.7	367.7	371.0	4,471
1985[1]	359.2	321.6	356.7	359.0	381.4	374.1	394.0	380.2	362.7	383.3	378.5	394.8	4,444
1986													

[1] Preliminary *Source: Bureau of Mines*

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Average Price of Distillate (Middle) No. 2 Fuel Oil[1] Index (1967 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1973	113.9	124.1	129.1	130.1	133.8	137.4	141.8	143.3	145.6	147.7	157.3	171.7	139.7
1974	194.8	234.1	251.8	257.9	269.2	279.7	288.9	294.8	298.8	297.9	296.0	300.1	272.0
1975	299.1	297.5	294.6	294.9	296.1	301.3	308.3	312.9	318.2	322.9	330.8	336.3	309.4
1976	336.7	339.3	335.3	331.8	328.5	329.2	332.2	336.2	338.9	341.2	344.3	349.8	337.0
1977	359.2	369.6	378.0	384.4	387.5	387.5	388.6	389.1	389.3	389.6	392.4	394.4	384.1
1978	396.7	398.6	394.8	393.3	393.3	393.3	393.2	393.6	394.0	400.0	407.6	418.0	398.0
1979	425.7	432.6	451.9	477.9	504.8	542.3	593.1	632.8	680.6	709.9	715.3	719.9	573.9
1980	739.3	793.5	837.7	858.9	964.8	860.9	870.2	875.6	873.2	868.4	873.4	891.1	850.6
1981	935.4	1,000.3	1,082.8	1,105.4	1,092.5	1,092.2	1,079.8	1,076.7	1,067.8	1,056.1	1,047.5	1,060.6	1,058.1
1982	1,067.8	1,058.2	1,029.3	953.6	928.7	974.6	1,024.0	1,022.2	998.8	999.2	1,041.5	1,054.5	1,012.7
1983	985.3	927.4	874.2	813.4	838.1	879.4	876.3	883.0	894.3	912.2	901.8	892.1	889.8
1984	871.4	924.4	952.1	874.9	881.9	895.2	893.4	859.6	837.8	854.4	868.9	851.4	880.5
1985[2]	835.7	810.3	809.9	820.3	851.0	797.7	754.9	743.6	800.5	841.3	887.5	905.3	821.5
1986[2]	830.2	627.2											

[1] Barge lots, f.o.b. refinery or terminal, excluding all fees & taxes. [2] Preliminary *Source: Bureau of Labor Statistics (0573)*

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Average Wholesale Price of Kerosene (Light Distillate)—No. 1 Fuel Index (1967 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1973	112.1	120.4	121.2	123.4	122.9	126.9	128.6	129.4	130.0	135.6	135.9	145.9	128.0
1974	154.3	184.8	198.7	209.4	217.6	233.2	241.7	250.2	256.8	254.7	261.4	257.9	226.7
1975	253.7	267.2	274.9	273.6	280.6	284.6	283.7	299.1	297.9	299.4	304.2	307.8	285.6
1976	310.5	316.6	313.9	311.2	306.7	303.8	305.4	309.2	311.5	316.0	320.2	323.2	312.3
1977	326.1	339.7	346.9	352.4	355.5	358.0	360.9	363.2	364.0	375.1	379.4	381.3	358.5
1978	383.0	388.2	388.4	387.9	390.7	391.4	393.1	394.4	395.8	397.6	398.4	403.0	392.7
1979	407.5	412.7	419.1	433.0	465.5	504.1	533.4	588.4	633.4	675.2	696.6	706.3	539.6
1980	733.9	776.9	834.6	862.5	870.5	878.4	892.7	903.1	903.2	896.3	896.8	911.4	863.4
1981	932.1	972.0	1,041.0	1,080.9	1,084.1	1,078.9	1,067.5	1,052.6	1,044.6	1,043.2	1,042.7	1,037.9	1,039.8
1982	1,044.3	1,034.3	1,027.9	1,009.1	975.9	974.2	984.4	983.0	976.3	969.7	985.9	992.1	996.4
1983	975.2	959.4	939.2	908.4	897.1	894.3	882.8	880.7	880.4	889.3	885.5	881.4	906.1
1984	872.2	885.8	903.5	879.2	876.8	876.5	874.3	863.0	853.2	854.4	857.1	847.5	870.3
1985[1]	840.8	833.3	827.5	824.5	826.9	803.1	779.8	780.3	780.6	804.8	806.3	812.7	810.1
1986[1]	795.6	748.9											

[1] Preliminary *Source: Bureau of Labor Statistics (0572)*

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Stocks of Distillate Fuel in the U.S., First of the Month In Millions of Barrels

													Residual Fuel — Oil Stocks —	
Year	Jan	Feb¹	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan 1	July 1
1976	208.8	165.5	150.5	138.3	137.3	147.1	165.1	190.9	218.0	232.3	235.6	223.7	74.1	64.3
1977	186.0	143.0	133.3	141.9	148.3	162.2	178.9	204.9	229.8	252.8	267.4	270.6	72.3	71.9
1978	250.3	213.3	165.7	137.9	136.2	144.6	157.3	180.5	200.2	220.7	233.1	233.2	90.0	72.0
1979	216.5	175.8	127.3	112.8	115.1	123.1	141.4	171.2	195.4	220.4	231.1	236.7	90.2	79.8
1980	228.7	212.4	191.7	177.9	177.2	183.4	196.6	213.8	226.3	232.4	225.7	222.4	95.6	87.8
1981	205.4	179.4	172.6	164.4	164.6	171.8	179.9	186.3	200.2	207.3	201.2	200.1	91.5	69.4
1982	191.5	164.4	147.4	126.3	108.0	113.6	123.7	148.2	158.7	161.2	170.1	185.6	78.0	60.7
1983	178.6	167.6	148.2	118.1	103.1	108.9	113.7	130.7	142.4	154.0	162.6	161.2	66.2	49.9
1984	140.3	119.3	132.2	109.6	97.7	98.1	112.8	124.4	133.3	142.9	152.2	161.0	48.5	46.9
1985¹	161.1	141.8	121.5	99.4	97.1	104.7	110.0	115.5	113.7	117.1	121.7	139.3	53.0	40.2
1986¹	143.9												50.7	

[1] Preliminary *Source: Bureau of Mines*

T 285

U.S. Production of Distillate Fuel Oil In Millions of Barrels

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1976	84.8	85.9	86.6	79.7	84.9	86.6	91.8	92.4	88.4	92.9	95.4	100.9	1,070.2
1977	104.5	103.5	98.4	89.8	97.1	95.7	99.1	101.4	99.3	104.2	100.2	103.0	1,196.3
1978	95.1	82.7	93.5	88.8	100.8	93.3	96.8	102.2	95.6	102.3	101.0	104.2	1,156.1
1979	94.3	80.9	93.6	88.4	95.0	94.6	102.5	103.0	100.6	100.8	97.2	99.9	1,150.8
1980	93.4	80.2	79.3	73.8	76.7	79.4	83.4	76.3	80.6	80.3	81.1	89.6	974.1
1981	92.6	78.6	77.0	72.5	76.1	75.0	74.2	82.3	78.3	77.0	81.5	88.6	953.8
1982	80.3	67.9	70.9	70.7	81.2	81.9	84.8	77.7	79.7	88.0	85.8	82.3	951.3
1983	72.0	59.8	61.8	65.1	75.8	76.4	80.7	81.1	82.2	83.1	80.4	78.2	896.5
1984	80.3	83.1	76.8	70.3	81.3	86.4	84.3	82.5	81.2	83.4	84.8	86.7	981.2
1985¹	80.9	69.8	69.6	74.2	82.8	79.4	82.0	80.2	78.4	89.0	93.0	98.4	978.6

[1] Preliminary *Source: Dept. of Energy*

T 286

U.S. Imports of Distillate Fuel Oil In Millions of Barrels

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1976	5.1	6.3	4.8	2.9	3.0	4.5	3.9	4.1	4.5	4.5	4.0	6.1	53.5
1977	10.8	18.6	17.0	4.6	3.1	4.0	5.9	5.0	5.1	4.6	5.6	7.0	91.3
1978	6.1	5.9	6.0	3.0	3.9	4.4	4.6	4.4	4.9	5.5	6.7	7.9	63.3
1979	7.0	5.5	5.5	4.5	5.8	5.4	7.0	6.7	3.8	6.6	5.8	7.1	70.5
1980	5.5	6.9	6.0	4.6	3.9	3.2	3.6	2.4	3.0	3.6	4.0	5.2	51.9
1981	8.5	9.1	4.6	3.5	5.5	6.7	5.5	5.4	3.9	3.7	3.7	2.9	63.1
1982	3.0	3.7	1.5	1.8	2.3	3.1	3.9	2.5	1.8	2.8	4.4	3.4	34.0
1983	2.1	1.6	1.3	2.2	4.5	5.4	8.3	9.3	7.8	8.1	6.1	6.8	63.5
1984	9.3	13.2	3.6	6.6	7.8	7.7	6.2	8.0	8.7	13.0	9.5	5.9	99.4
1985¹	8.4	4.2	4.8	7.3	6.3	4.4	2.9	3.1	6.2	7.6	8.2	9.0	72.5

[1] Preliminary *Source: Dept. of Energy*

T 287

U.S. Domestic Consumption of Distillate Fue! Oil In Millions of Barrels

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1976	133.2	107.2	103.5	83.6	78.1	73.1	69.9	69.4	78.6	94.0	111.4	144.7	1,146.7
1977	158.2	131.8	106.7	88.1	86.2	83.1	79.1	81.6	81.4	94.1	102.6	130.4	1,223.3
1978	138.2	135.8	127.3	93.3	96.2	85.1	78.2	86.8	79.9	95.4	107.5	128.8	1,252.6
1979	142.0	134.7	113.6	90.5	92.9	81.2	79.4	85.6	79.4	96.7	97.4	114.9	1,208.5
1980	115.1	107.6	98.5	79.0	74.5	69.5	69.7	66.2	77.6	90.5	88.5	112.1	1,049.0
1981	127.4	94.5	90.0	76.0	74.7	73.9	73.7	74.0	75.4	86.9	86.4	99.6	1,032.5
1982	108.0	86.4	91.3	89.3	75.8	73.5	63.8	68.8	75.2	80.0	74.2	88.5	974.9
1983	86.7	77.8	91.4	80.9	73.0	75.7	70.4	77.3	77.3	80.9	86.2	104.3	981.9
1984	109.3	82.2	101.0	87.8	87.2	77.8	77.6	79.3	79.6	85.7	84.8	88.8	1,041.2
1985¹	107.3	92.4	95.1	83.0	80.6	77.5	76.0	82.0	77.6	90.9	80.9	100.3	1,043.6

[1] Preliminary *Source: Dept. of Energy*

T 288

Hides and Leather

The quantity of leather shipped in 1985 fell to an estimated 15.7 million units, a reduction from 1984's volume of about 9 percent. Included in these totals are leathers manufactured from the hides and skins of cattle, calves, kips, goats, sheep, lambs, cabretta, horses, and other animals and reptiles. Shipments of cattlehide leather constituted some 12.9 million units, or 82.9 percent of the total.

The tanning industry's greatest consumer is the footwear industry, which accounted for an estimated 59 percent of 1985's leather shipments. The proportion of production of domestic footwear with leather uppers remained at 55 percent, but because footwear production fell by 16 percent in 1985 so also did the amount of leather produced for footwear uppers. Consumption of leather for soles dropped about 20 percent, and less leather was used in 1985 by the luggage and personal leather-goods industries.

Cattle hides for commercial slaughter diminished to 35.9 million, or roughly 5 percent, compared with 1984. High interest rates and uncertainty about domestic consumption of red meat have combined to discourage a further buildup in cattle herds, despite falling prices of grain feeds since 1982. Cattle slaughter is projected to decline again to about 33.8 million head in 1986.

In 1985 prices for cattlehides fell because of decreasing demand from U.S. tanners. During 1985's first half, the Department of Commerce's composite average monthly price of three types of hide was 52.4 cents per pound, down about 18 percent from the comparable figure for the same period a year earlier. Similarly, during the first half of 1985 the producers' price index for leather was down 6.7 percent from the corresponding span of 1984. However, hide and leather prices were firmer during 1985's last six months, in response to reduced slaughtering and increased demand.

Although U.S. leather exports as a whole were adversely affected in 1985 by the strength of the dollar, exports of wet-blue chrome cattlehide leather exports increased 70 percent by value for January–June, compared with the same period in 1984. Sales to the People's Republic of China represented 47 percent of U.S. wet-blue exports during January–June 1985. Exports of this semi-processed leather for all of 1985 exceeded 3 million hides. Whole cattle hide exports (excluding wet blues) in 1985 totaled 23.26 million pieces, up some 4 percent from 1984 shipments. South Korea, Japan, Taiwan, Mexico and Romania were the largest export markets in order of rank in 1985.

U.S. leather imports fell slightly from $403 million in 1984 to $938 million in 1985. Cattlehide and calfskin uppers and goat and kidskin leather imports registered increases over 1984.

In 1985 domestic production of non-rubber footwear declined about 17 percent, compared with 1984. This decline continued a downward trend that began in 1968. Production has fallen at a compounded annual rate of 5.4 percent over this 17-years' period.

Leather shipments are expected to increase to about 16.2 million equivalent cattlehide units in 1986. Domestic slaughter and production of leather goods will probably decline from 1985's levels, but U.S. tanners are expected to increase exports because of the reduction in the dollar's value against foreign currencies. And because the price of imported leathers is expected to rise for the same reason, domestic leather is expected to recapture some of its lost share of the U.S. market.

World Production of Bovine Hides and Skins In Thousands of Units of Metric Tons

Year	Argentina	Australia	Brazil	Canada	Colombia	France	Germany East	Germany West	Mexico	Italy	Poland	South Africa	Turkey	New Zealand	Un. Kingdom	United States	USSR
1980	322	149	280	91		EC-10 (698)						60		40		964	867
1981	333	142	291	96		EC-10 (683)						52		44		987	890
1982	293	155	308	98	92	179	44	149	138	96	75	53	56	46	106	1,019	867
1983	270	160	322	99	84	200	45	149	140	99	70	61	59	44	109	1,040	892
1984[1]	290	129	310	94	87	190	45	164	145	101	73	60	60	37	113	1,066	917
1985[1]	311	120	350	92	87	190	48	160	141	103	71		61	41	107	1,012	942

Average [1] Preliminary *Source: Foreign Agricultural Service, U.S.D.A.* T 289

Salient Statistics of Hides & Leather in the United States

Year	New Supply of Cattle Hides — Domestic Slaughter — Federally Inspected	Uninspected[4]	Total Production	Net Exports	Total New Supply	Wholesale Prices—¢ lb. Heavy Cows[2]	Native[3] Steers	Production All U.S. Tanning	Production Cattle-Hide	Upper & Lining Leather Exports	Wholesale Leather Prices Cattle Hide[5]	Upper[6]	Footwear Production[7]	Export
	Thousands of Equivalent Hides							In Ths. Equiv. Hides		Ths. Sq. Ft.	1967 = 100		Mil. Pairs	
1980	31,642	2,165	33,807	18,640	15,167	47.1	45.7	17,600	14,790	192,597	310.6	211.7	386.3	9.8
1981	32,819	2,134	34,953	18,701	16,252	46.1	44.2	19,184	15,520	192,193	319.8	214.4	372.0	9.7
1982	33,907	1,936	35,843	22,553	13,290	45.1	42.3	18,229	15,028	159,804	311.4	215.8	359.1	7.7
1983	34,816	1,833	36,649	21,205	15,444	53.5	50.2	18,610	15,430	155,808	330.7	223.4	344.3	6.2
1984[1]	35,880	1,702	37,582	25,194	12,388	67.0	61.0	16,940	14,021	163,373	372.3	219.2	301.4	6.2
1985[1]	34,765	1,528	36,293	24,398	11,895			15,230	12,550	131,505	353.2	223.5	265.9	9.2

[1] Preliminary [2] Heifers [3] Central U.S. [4] Includes farm slaughter, diseased & condemned animals & hides taken off fallen animals. [5] Finished cattlehide & kipside leather; sheep & lamb leather. [6] Women's Leather Upper. [7] Other than rubber. *Sources: Leather Industries of America, Bureau of Labor Statistics, Dept. of Commerce* T 290

U.S. Exports of Upper & Lining Leather In Thousands of Square Feet

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1976	14,517	17,367	18,157	19,449	21,149	18,795	14,028	12,074	18,343	14,361	15,108	18,388	203,707
1977	18,630	19,272	23,315	18,338	16,714	16,205	18,612	12,276	16,838	12,807	14,980	18,240	206,276
1978	17,364	15,308	16,408	16,720	18,899	21,427	14,160	19,726	16,224	17,438	17,947	17,176	208,799
1979	13,854	16,014	18,833	16,480	15,664	18,526	13,153	15,265	14,457	13,895	16,089	15,433	187,665
1980	15,769	16,873	18,710	13,024	12,652	15,483	15,481	15,215	15,818	19,051	20,880	13,641	192,597
1981	19,633	14,418	19,717	17,678	18,016	18,692	13,921	10,918	15,393	12,682	19,464	11,660	192,193
1982	10,849	10,343	13,696	15,534	17,449	18,610	18,486	12,065	10,417	11,842	9,726	10,786	159,804
1983	11,052	12,453	15,078	15,200	13,492	14,868	12,013	13,099	12,715	14,027	12,400	9,412	155,808
1984	13,624	13,015	17,787	14,772	19,514	14,294	12,907	14,046	11,219	11,533	10,231	10,431	163,373
1985[1]	10,266	8,855	11,023	11,637	12,112	16,233	9,919	10,763	8,085	12,310	12,452	7,824	131,479

[1] Preliminary. *Source: Leather Industries of America*

T 292

U.S. Production of All Footwear (Shoes, Sandals, Slippers, Athletic, Etc.) In Millions of Pairs

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1976	37.0	36.1	42.2	39.4	38.7	37.3	29.5	34.8	35.1	33.2	30.0	29.2	422.5
1977	34.8	34.5	37.6	34.3	35.5	36.9	26.9	37.5	35.6	36.4	35.9	33.2	418.1
1978	34.5	34.8	39.9	35.8	39.5	36.8	26.1	37.1	34.2	36.3	33.8	30.2	418.9
1979	37.3	34.9	38.7	33.4	37.3	31.9	25.4	33.9	31.1	35.0	31.3	28.7	398.9
1980	34.9	33.2	33.9	32.9	34.1	32.5	27.3	30.7	32.5	36.2	29.5	28.6	386.3
1981	31.1	30.4	34.1	32.6	31.6	30.0	26.8	30.4	32.6	34.7	30.3	27.4	372.0
1982	29.4	30.2	34.4	30.0	31.0	31.0	26.1	30.7	31.4	31.2	28.4	25.3	359.1
1983	28.1	32.1	31.8	27.3	30.3	28.8	22.8	30.7	29.7	29.4	28.0	25.2	344.3
1984	26.7	28.5	29.6	27.1	28.0	24.1	20.3	25.5	21.4	24.7	21.9	19.4	301.4
1985[1]	22.6	21.1	22.2	22.3	24.9	21.2	19.8	24.6	22.5	24.8			

[1] Preliminary. *Source: U.S. Department of Commerce*

T 295

U.S. Imports and Exports of All Cattle Hides In Thousands of Hides

	Imports		U.S. Exports—By Country of Destination													
Year	Total	From Canada	Total	Canada	France	W. Germany	Japan	Mexico	Netherlands	Poland	Taiwan	Spain	Romania	Korea Repub.	Czech.	Italy
1976	962	958	25,270	1,057	816	518	9,356	1,708	326	389		957	1,651	3,270	678	1,561
1977	932	926	24,489	859	769	435	8,425	1,967	417	433		940	1,472	3,611	680	1,048
1978	704	694	24,791	1,093	555	379	8,797	1,938	211	349		1,019	1,942	3,720	586	1,284
1979	673	643	23,731	1,248	691	454	7,396	2,428	324	513		892	1,317	2,526	682	2,248
1980	880	859	19,512	1,046	238	206	7,476	1,972	164	522		112	1,046	2,653	318	690
1981	1,028	881	19,703	1,212	137	319	7,512	2,485	94	203		394	680	3,579	334	486
1982	658	592	23,175	1,041	478	671	6,469	1,882	280	790		643	939	4,572	415	1,395
1983	665	570	21,281	1,235	332	343	6,413	1,296	174	303		246	1,318	4,635	489	823
1984	711	669	25,029	1,072	292	252	7,334	1,858	221	319	2,697	242	1,032	5,423	669	1,170
1985[1]	1,044	883	24,956	729	215	110	6,824	2,287	71	402	2,797	214	1,168	6,441	418	1,134

[1] Preliminary. *Source: Leather Industries of America*

T 297

Average Factory Price of Footwear in the United States In Dollars Per Pair

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1976	8.00	7.87	8.07	8.16	8.23	8.23	8.32	8.34	8.63	8.21	8.75	8.73	8.28
1977	8.61	8.40	8.63	8.81	8.53	8.39	8.44	8.36	8.51	8.28	8.62	9.00	8.54
1978	8.50	8.39	8.76	9.35	9.51	9.37	9.41	8.66	9.40	9.37	9.61	10.31	9.20
1979	9.73	9.84	9.68	10.23	10.00	10.48	11.74	10.31	10.30	10.46	11.15	11.47	10.60
1980	11.67	11.83	11.81	12.27	12.16	11.37	11.40	11.94	11.08	11.25	11.45	11.41	11.63
1981	11.67	11.93	12.52	12.72	13.09	13.16	13.01	13.14	13.22	12.90	12.67	12.58	12.52
1982	12.96	12.32	12.49	12.74	12.76	13.30	14.13	13.34	13.12	13.10	13.56	14.08	13.14
1983	12.88	13.72	13.18	13.54	14.20	13.57	12.91	14.14	14.06	15.02	14.69	15.55	13.96
1984	14.95	14.19	14.00	14.99	15.20	14.43	14.88	14.59	15.11	14.56	15.00	15.62	14.79
1985[1]	14.70	14.44	13.60	14.34	14.34	14.81	13.74	14.04	13.62	13.22	13.08	14.60	14.04

[1] Preliminary. *Source: Leather Industries of America*

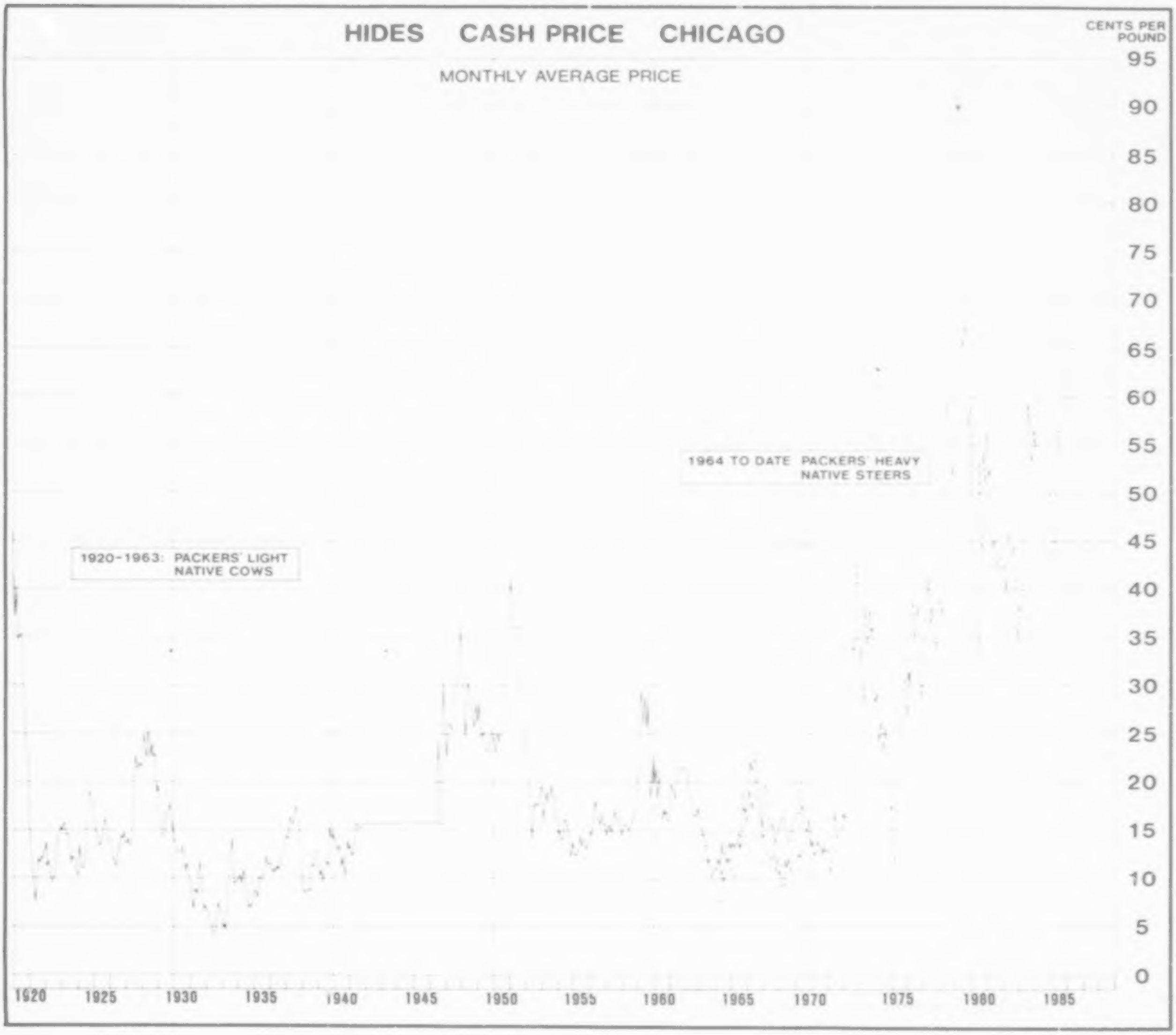
T 298

HIDES AND LEATHER

Index Price[2] of Hides (Packer Heavy Native Steers[1])—F.O.B. Shipping Point 1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1973	34.0	33.5	28.3	38.3	36.3	33.8	36.3	38.3	35.5	36.3	32.8	28.2	34.3
1974	29.3	—	24.1	26.3	26.3	23.3	25.8	25.3	24.5	17.3	17.5	14.3	23.1
1975	11.8	12.5	16.3	27.5	25.3	25.8	25.3	25.3	25.8	28.0	30.8	26.3	23.4
1976	31.5	29.8	30.0	34.9	39.0	34.8	36.3	37.3	38.3	31.8	29.0	32.3	33.8
1977	35.8	36.3	37.3	40.1	41.3	36.3	38.1	36.8	34.8	33.8	34.8	38.0	37.0
1978	38.8	37.8	37.3	41.3	41.8	45.8	47.8	53.0	59.0	57.3	54.8	51.8	47.2
1979[2]	506.4	548.4	766.9	750.1	760.2	696.3	653.0	594.6	549.2	568.9	498.5	480.1	614.4
1980	496.7	409.3	331.5	320.5	283.6	321.0	369.0	448.0	361.4	412.9	455.9	420.6	385.9
1981	375.1	344.1	356.1	405.8	385.8	364.9	351.7	373.6	344.3	347.7	347.2	343.4	361.6
1982	353.6	346.0	325.8	339.3	353.5	342.1	342.1	349.7	343.5	336.4	324.7	312.9	339.1
1983	313.9	315.0	329.6	345.0	378.6	386.8	434.2	N.A.	447.5	450.2	469.9	489.6	396.4
1984	479.0	469.5	486.4	470.4	530.6	558.9	515.9	543.3	597.5	559.8	386.0	391.5	499.1
1985	446.2	378.5	370.8	466.8	494.4	490.7	N.A.	428.6	N.A.	N.A.	N.A.	N.A.	435.1
1986	502.3												

[1] Over 53 pounds. [2] Data prior to 1979 are in *cents per pound*. *Source: Bureau of Labor Statistics* (0411-0111.99) T.296



Hogs

Inventory of all hogs and pigs in the 10 major producing states on December 1, 1985, totaled 52.3 million head, down 3 percent from a year ago and the lowest number for this date since 1966. The U.S. breeding inventory was put at 6.78 million head, down 2 percent from the previous year and the lowest number since 1961—the earliest year for which there are comparable data. The market hog inventory totaled 45.5 million head, a decrease of 3 percent from year-ago and the lowest since 1975.

The U.S. pig crop in 1985 totaled 86 million head, down from 86.6 million in 1984. USDA placed the pig crop from December 1984 to May 1985 at 42.5 million head, up slightly from 42.4 the previous year. The pig crop from June–November 1985 was pegged at 43.5 million head, marginally below 1984's 44.2 million crop. Farrowings declined 3 percent from year-ago in June–November to 4.5 million head—the smallest for this period since 1975. Pigs per litter averaged 7.67, surpassing 1984's 7.56 record.

Ongoing financial strains on farmers continued to discourage expansion of hog herds in 1985. Producers reduced herds mainly by selling a larger portion of gilts. The prospects for continued declines in feed prices in 1986 may help to stabilize hog herd numbers and, in fact, the percentage of sows in the slaughter mix in 1985 suggests that breeding herd stabilization may be occurring. Sow slaughter represented 4.8 percent of 1985's slaughter and has averaged 5.1 percent over the past 5 years.

On December 1, 1985, producers in the 10 quarterly reporting states indicated farrowing intentions for December 1985–May 1986 at 4.4 million head, equal to year-ago intentions, according to USDA's Hogs and Pigs Report. In the March 1986 report, producers indicated intentions to farrow 4 percent fewer hogs in the March–May period than the previous year. USDA put December 1985–February 1986 farrowings 1 percent below year-ago in the same report. Farrowing intentions for December 1985–May 1986 were listed at 3 percent below year-earlier.

Inventory of all hogs and pigs as of March 1, 1986, totaled 38.6 million head, 3 percent below March 1985. The March 1986 breeding inventory was placed at 5.0 million head, a 4-percent decline from the previous year, and the market hog inventory was pegged at 33.6 million, down 2 percent from 1985. Pigs per litter in the December 1985–February 1986 period averaged 7.67 head.

Imports of pork products in 1985 totaled 1.1 billion pounds, an 18-percent increase from 1984, caused mainly by the strong U.S. dollar. In 1986, pork product imports may decline slightly to about 1 billion pounds, largely because the European Economic Community reduced its export subsidy. Live hog imports from Canada totaled 1.2 million head in 1985, down 7 percent from 1984. Live hog imports dropped in the second half of 1985 as countervailing duties were assessed.

Futures Markets

Live hog futures are traded at the Chicago Mercantile Exchange and the MidAmerica Exchange.

World Hog Numbers in Specified Countries In Millions of Head

Year	Brazil	Canada	Denmark	France	W. Germany	Hungary	Italy	Japan	Mexico	Philippines	Poland	Spain	China[3]	Un. Kingdom	United States	USSR	World
1978	37.6	Avg.	8.2	11.5	21.4	7.9	9.4	8.8	12.6	6.9	20.6	Avg.	Avg.	7.7	56.5	70.5	Avg.
1979	36.0	(8.3)	9.2	11.3	22.6	8.0	8.9	9.5	12.7	7.4	21.1	(9.9)	(296.2)	8.0	60.4	73.5	(670.9)
1980	36.5	10.1	9.5	11.4	22.4	8.4	8.8	10.0	12.8	7.9	21.0	10.5		7.8	67.3	73.9	
1981	35.0	10.2	9.7	11.7	22.6	8.3	8.9	10.1	15.4	7.6	18.7	11.0	305.4	7.8	64.5	73.4	708.7
1982	33.5	10.0	9.8	11.8	22.3	8.3	9.0	10.0	16.2	7.6	19.1	10.7	293.7	7.9	58.7	73.3	693.5
1983	33.5	10.1	9.5	11.7	22.5	9.0	9.1	10.3	16.5	8.0	17.6	11.7	300.8	8.2	54.5	76.7	700.7
1984	30.0	10.7	9.0	11.3	23.4	9.8	9.2	10.4	13.1	7.6	15.9	12.1	298.5	7.8	56.7	78.7	700.8
1985[1]	30.0	11.0	9.0	11.0	23.6	9.2	9.0	10.7	12.3	8.3	17.2	11.5	306.8	7.8	54.1	77.9	706.3
1986[2]	30.5	10.7	9.1	11.0	24.4	8.3	9.1	10.4	13.1	7.7	19.1	11.0	331.5	8.1	52.3	77.6	728.7

[1] Preliminary [2] Estimate [3] Mainland *Source: Foreign Agricultural Service, U.S.D.A.* T 300

Salient Statistics of Pigs and Hogs in the U.S.

Year	Pig Crop					Value of Hogs on Farms, Dec. 1		Hog Marketings Ths. Head	Quantity Produced (Live Wt.) Mil. Lbs.	Value of Production Mil. $	Hogs Slaughtered in Thousand Head				
	Spring[2]		Fall[3]								Commercial				
	Sows Farrowed	Pigs Saved	Sows Farrowed	Pigs Saved	Total Pig Crop	$ Per Head	Total Million $				Federally Inspected	Other	Total	Farm	Total
	In Thousands of Head														
1979	7,176	50,571	7,322	52,241	102,792	56.00	3,775	92,327	22,595	9,416	85,425	3,674	89,099	1,080	90,179
1980	7,229	52,288	6,855	49,432	101,720	74.70	4,821	100,388	23,352	8,847	91,882	4,192	96,074	1,100	97,174
1981	6,440	47,605	6,268	46,248	93,853	70.10	4,114	95,895	21,783	9,521	87,851	3,724	91,575	897	92,472
1982	5,664	41,575	5,884	43,614	85,189	89.90	4,903	86,398	19,446	10,186	79,328	3,861	82,190	654	82,844
1983	6,301	47,409	6,176	45,746	93,155	58.80	3,331	88,423	21,000	9,808	84.762	2,822	87,584	500	88,084
1984[1]	5,694	42,403	5,857	44,183	86,586	75.00	4,056				82,478	2,690	85,168		
1985[1]	5,569	42,530	5,667	43,476	86,006	69.60	3,639				81,948	2,521	84,469		
1986[4]	5,585	42,446													

[1] Preliminary [2] December–May [3] June–November [4] Breeding intentions *Source: Statistical Reporting Service, U.S.D.A.* T 302

HOGS

Hogs and Pigs on U.S. Farms on December 1 In Thousands of Head

Year	Georgia	Illinois	Indiana	Iowa	Kansas	Kentucky	Minnesota	Missouri	Nebraska	No. Carolina	Ohio	South Dakota	Tennessee	Wisconsin	Total
1979	2,360	6,950	4,850	16,200	2,090	1,470	4,900	4,650	4,150	2,650	2,120	2,000	1,400	1,830	67,318
1980	3,250	6,600	4,600	16,100	1,900	1,220	5,100	3,980	3,900	2,460	2,150	1,860	1,140	1,680	64,462
1981	1,520	6,450	4,100	16,300	1,770	1,040	4,300	3,400	4,100	1,980	2,050	1,710	900	1,380	58,698
1982	1,450	5,600	4,400	14,400	1,670	960	4,000	3,500	3,800	2,150	1,920	1,580	750	1,220	54,534
1983	1,350	5,400	4,200	15,000	1,650	1,000	4,400	3,600	4,000	2,350	2,200	1,730	950	1,280	56,694
1984	1,200	5,400	4,300	14,200	1,600	880	4,300	3,450	3,700	2,300	1,970	1,600	1,100	1,300	54,073
1985[1]	1,150	5,400	4,150	13,500	1,520	800	4,100	3,050	3,900	2,350	1,980	1,610	950	1,250	52,298

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T 301

Quarterly 10—U.S. State Hogs & Pigs Report In Thousands of Head

Year[2]	Inventory[1]	Breeding[1]	Market[1]	Farrowings	Pig Crop	Year	Inventory[1]	Breeding[1]	Market[1]	Farrowings	Pig Crop
1983	44,150	5,638	38,512	9,735	72,733	1985[3]	41,100	5,258	35,842	9,020	67,648
I	42,440	5,670	36,770	2,090	15,543	I	42,420	5,348	37,072	1,935	14,690
II	41,840	5,928	35,912	2,768	21,063	II	39,530	5,215	34,315	2,420	18,762
III	45,645	6,263	39,382	2,422	17,836	III	41,450	5,397	36,053	2,191	16,941
IV	46,030	5,839	40,191	2,377	17,663	IV	41,820	5,377	36,443	2,265	17,255
1984	42,420	5,348	37,072	9,020	67,680	1986					
I	44,150	5,638	38,512	1,964	14,288	I[3]	41,000	5,258	35,842	1,956	
II	40,070	5,446	34,624	2,481	18,814	II					
III	41,915	5,771	36,144	2,259	17,158	III					
IV	43,180	5,550	37,630	2,316	17,420	IV					

[1] Beginning of period. [2] Quarters are Dec. preceding year—Feb. (I), Mar.–May (II), June–Aug. (III) & Sept.–Nov. (IV). [3] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T 181a

U.S. Federally Inspected Hog Slaughter In Thousands of Head

Week ended	1984	1985	1986	Week ended	1984	1985	1986
Jan. 1[1]	1,350	1,238	1,153	July 2	1,438	1,476	
8	1,418	1,295	1,250	9	1,105	1,171	
15	1,708	1,679	1,635	16	1,445	1,523	
22	1,625	1,615	1,654	23	1,378	1,427	
29	1,577	1,528	1,563	30	1,305	1,400	
Feb. 5	1,543	1,565		Aug. 6	1,382	1,474	
12	1,571	1,582		13	1,406	1,556	
19	1,578	1,508		20	1,409	1,524	
26	1,579	1,539		27	1,479	1,531	
Mar. 5	1,656	1,608		Sept. 3	1,502	1,601	
12	1,791	1,635		10	1,396	1,429	
19	1,691	1,638		17	1,657	1,690	
26	1,681	1,647		24	1,679	1,667	
Apr. 2	1,695	1,642		Oct. 1	1,679	1,681	
9	1,695	1,569		8	1,699	1,644	
16	1,728	1,623		15	1,701	1,686	
23	1,642	1,676		22	1,754	1,620	
30	1,588	1,662		29	1,736	1,654	
May 7	1,635	1,702		Nov. 5	1,754	1,668	
14	1,664	1,699		12	1,742	1,654	
21	1,579	1,705		19	1,681	1,654	
28	1,578	1,580		26	1,446	1,697	
				30	1,812	1,328	
June 4	1,367	1,361		Dec. 3	1,792	1,656	
11	1,591	1,592		10	1,692	1,566	
18	1,541	1,561		17	1,687	1,655	
25	1,431	1,535		24	1,238	1,153	

[1] Corresponding dates—1984: December 31, 1983; 1985: December 29, 1984. *Source: Economic Research Service, U.S.D.A.* T 181b

Federally Inspected Hog Slaughter in the United States In Thousands of Head

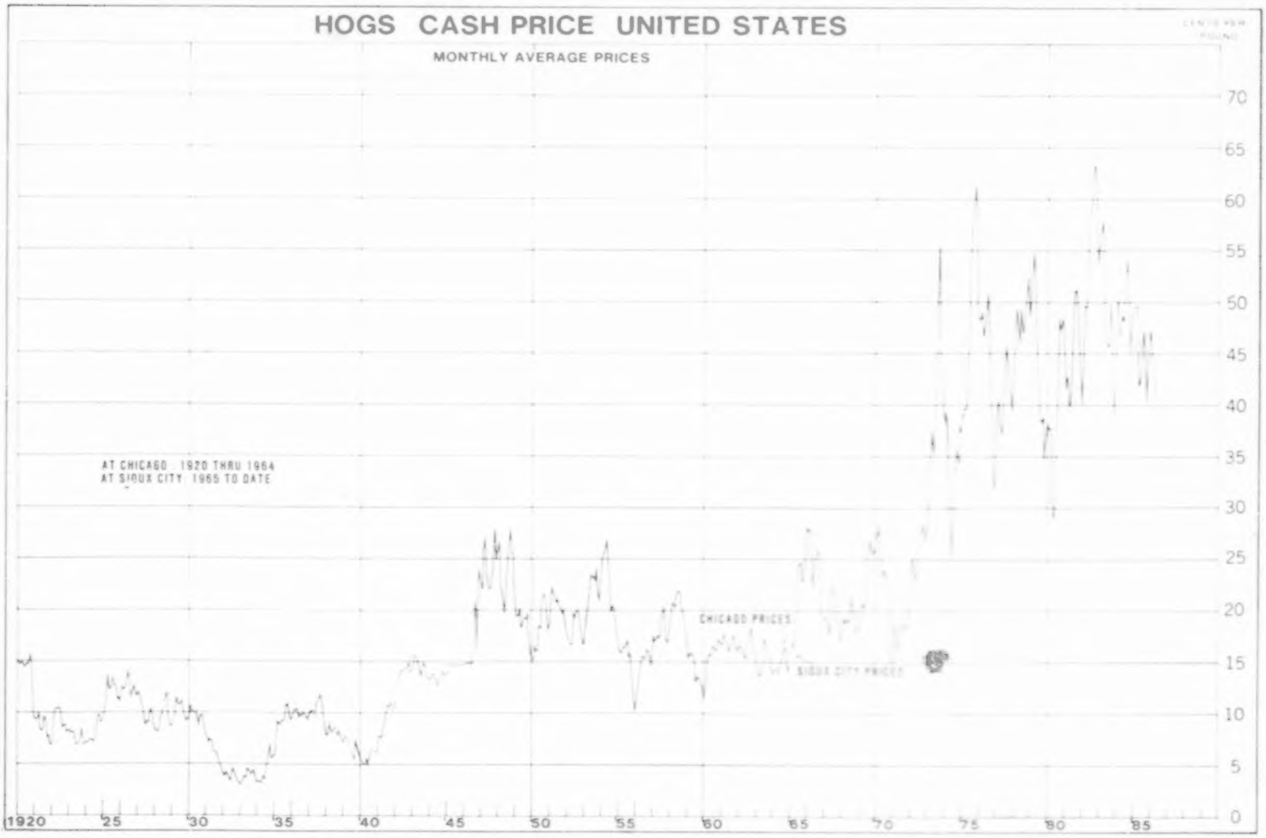
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1978	5,969	5,840	6,795	6,213	6,298	5,778	5,402	6,227	6,203	6,576	6,737	6,101	74,139
1979	6,393	5,693	7,113	6,962	7,284	6,678	6,734	7,662	6,840	8,736	8,097	7,234	85,425
1980	8,038	7,277	7,856	8,456	8,167	7,279	6,910	6,745	7,601	8,404	7,362	7,788	91,882
1981	7,768	6,873	7,988	7,993	7,004	6,682	6,540	6,580	7,320	7,872	7,308	7,923	87,850
1982	6,875	6,340	7,691		20,043			18,310			20,068		79,328
1983	6,421	5,762	7,350	7,086	6,905	7,028	6,362	7,082	7,268	7,829	8,152	7,515	84,762
1984	6,947	6,591	7,578	6,953	7,153	6,392	5,806	6,628	6,439	7,908	7,354	6,729	82,478
1985[1]	7,114	6,208	6,932	7,177	7,359	6,209	6,399	6,810	6,738	7,566	6,797	6,940	81,949
1986	6,968												

[1] Preliminary. *Source: Statistical Reporting Service, U.S.D.A.* T.305

Average Live Weight of All Hogs Slaughtered Under Federal Inspection In Pounds Per Head

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average[1]
1978	236	233	234	237	241	244	241	239	239	243	248	247	240.2
1979	241	237	238	240	243	246	246	240	240	242	245	246	242.0
1980	243	239	239	241	244	244	242	239	239	241	246	247	242.0
1981	246	242	241	242	244	245	242	239	240	243	246	247	243.0
1982[2]	243	239	239		243			242			247		243.0
1983[2]	244	241	241	243	246	247	245	242	240	243	246	244	243.5
1984[2]	242	241	240	243	246	247	245	242	240	243	246	244	243.5
1985[2]	245	242	242	245	247	248	245	243	242	246	248	247	245.0

[1] Average is weighted by Federally inspected slaughter. [2] Preliminary. *Source: Department of Agriculture* T.311



HOGS

Average Price Received by Farmers for Hogs in the U.S. In Cents Per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average[1]
1981	40.90	41.30	38.80	39.00	40.90	47.40	49.30	49.20	48.60	45.00	41.50	39.00	43.90
1982	43.40	48.30	48.60	51.20	56.70	57.50	57.80	61.20	61.30	55.80	52.50	53.60	52.30
1983	55.30	56.10	50.40	46.90	45.90	43.90	43.40	46.70	44.10	40.40	37.50	44.20	46.80
1984	48.40	45.40	45.80	47.50	47.20	49.00	52.00	50.50	46.30	43.60	47.00	48.60	47.10
1985[2]	48.00	48.30	43.60	41.20	41.40	44.60	45.70	42.50	39.70	43.10	43.20	45.30	43.90
1986[2]	44.30	42.80	40.70										

[1] Weighted average by quantities sold. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T 306

Average Wholesale Price of Hogs, Average (All Weights) at Sioux City In Dollars Per 100 Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1981	41.67	42.78	39.88	40.15	41.96	48.78	51.01	51.14	48.89	46.15	42.10	40.17	44.29
1982	45.77	49.70	49.50	52.16	58.35	59.01	59.70	63.18	63.12	57.27	53.90	55.23	55.21
1983	57.24	57.78	51.37	47.84	47.40	45.73	45.81	49.77	46.05	41.64	38.81	46.53	47.73
1984	50.14	46.68	47.36	48.69	48.22	50.04	54.25	52.57	47.86	45.01	48.55	49.03	49.03
1985	49.60	49.55	44.54	41.85	42.70	45.67	47.09	43.91	40.42	44.20	44.46	47.11	45.09
1986	45.60												

Source: Department of Agriculture T 307

Hog-Corn Price Ratio[1] at Omaha

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1981	13.0	13.3	12.4	12.3	12.9	15.2	15.9	18.1	19.8	18.7	17.5	16.8	15.5
1982[2]	18.4	20.1	19.8	19.8	21.8	22.1	23.3	27.9	28.1	27.2	22.8	23.0	22.9
1983[2]	23.2	21.7	18.6	15.4	15.2	14.7	14.4	14.6	13.8	12.9	11.9	14.5	15.9
1984[2]	16.0	15.3	14.5	14.5	14.3	14.8	16.6	16.8	16.0	16.4	18.4	19.6	16.1
1985[2]	18.8	18.7	16.4	15.2	15.7	16.9	17.9	18.2	17.1	19.5	19.3	19.8	17.8
1986[2]													

[1] Ratio computed by dividing average price packer and shipper purchases of barrows and gilts by average price No. 2 yellow corn both at Omaha. This ratio represents the number of bushels of corn required to buy 100 pounds of live hogs. [2] Preliminary. *Source: Economic Research Service, U.S.D.A.* T 304

Cold Storage Holdings of Frozen Pork[1] in the U.S. on First of Month In Millions of Pounds

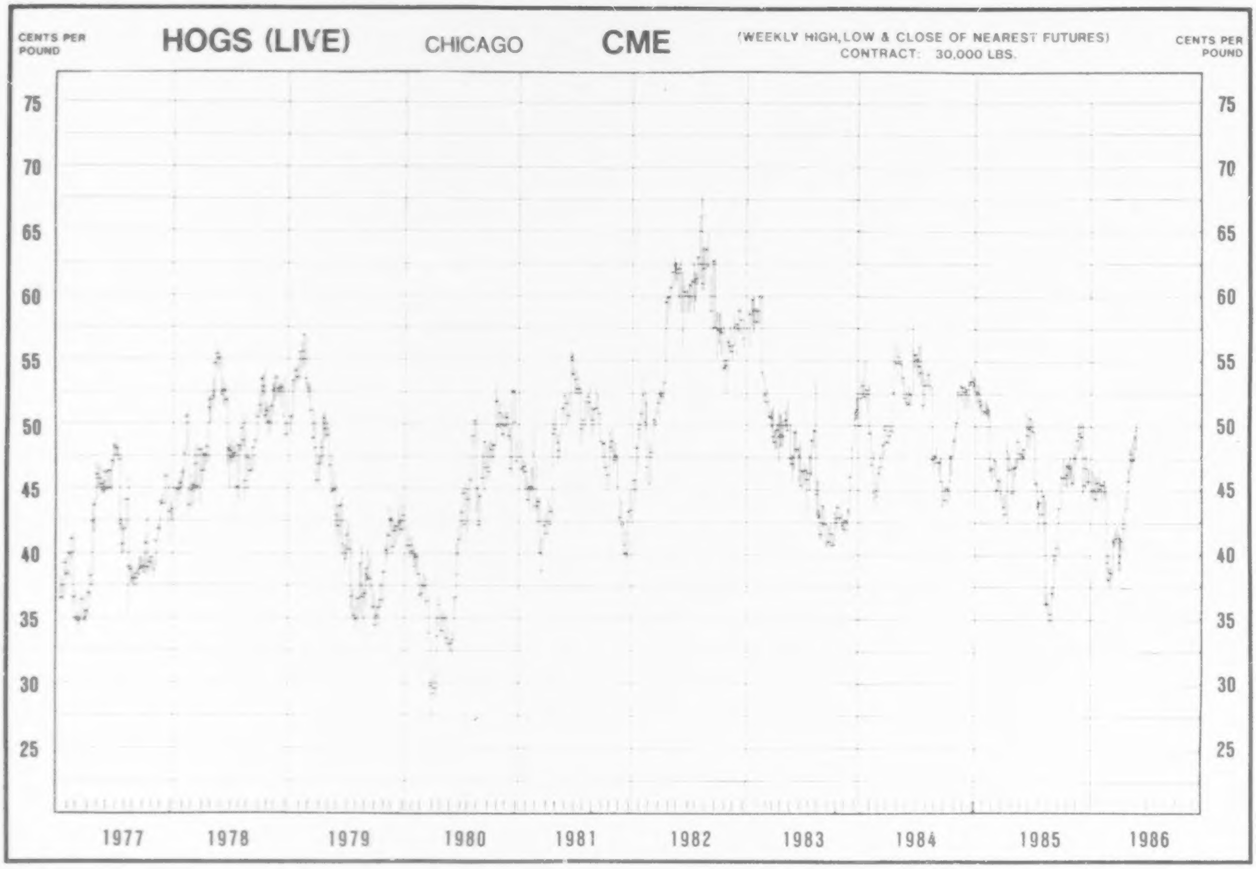
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1981	348.6	350.8	355.9	360.6	403.5	394.4	346.5	283.4	225.1	206.7	238.3	255.2
1982	264.4	247.3	246.3	274.1	—	—	264.1	—	—	183.0	—	—
1983	219.0	224.2	215.8	234.7	272.7	293.0	280.4	253.0	214.1	210.0	240.0	295.2
1984[2]	300.6	295.1	311.7	350.7	390.4	437.7	405.2	345.0	269.5	256.6	275.6	269.4
1985[2]	274.3	291.9	286.3	314.1	368.2	410.3	385.0	343.7	296.2	278.8	278.1	265.0
1986[2]	229.4	235.4	244.6									

[1] Excludes lard. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T 303

High, Low & Closing Prices of June Live Hogs Futures at Chicago In Cents per Pound

Year of Delivery		Year Prior to Delivery									Delivery Year						Life of Delivery Range
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
1983	High	53.40	54.00	53.25	53.00	52.50	57.17	55.85	55.30	56.70	58.15	56.45	55.30	51.87	51.87	49.80	5815
	Low	50.60	51.15	48.00	50.10	48.90	51.12	51.65	51.45	53.30	54.60	53.55	51.15	48.25	46.35	45.80	45.80
	Close	53.40	53.47	51.35	52.10	52.15	54.70	52.95	55.00	55.12	55.50	54.07	52.10	49.55	46.62	46.65	—
1984	High	47.75	47.75	46.50	50.50	56.00	55.00	52.15	54.25	53.75	56.00	53.20	57.27	58.00	56.20	54.80	58.00
	Low	46.75	45.40	43.90	43.80	48.90	49.90	49.00	52.20	52.00	52.30	50.40	51.30	54.20	51.35	51.47	43.80
	Close	46.75	45.80	45.15	49.80	53.55	50.05	51.97	53.55	53.05	52.75	51.70	56.12	54.42	51.60	54.17	—
1985	High	53.75	55.20	55.40	54.40	53.15	53.25	51.10	53.67	54.95	54.95	54.22	52.90	49.97	49.20	50.10	55.40
	Low	52.62	53.65	52.60	50.10	50.80	48.65	48.40	50.70	50.25	53.05	50.65	49.05	46.15	44.40	46.70	44.40
	Close	53.60	54.32	54.15	51.00	52.70	48.77	50.95	52.95	54.57	53.85	51.65	49.57	46.30	47.95	49.35	—
1986	High	48.95	48.65	49.00	47.60	44.40	43.75	43.97	44.70	46.45	47.00	45.50	45.90				
	Low	47.55	46.80	46.90	41.75	40.05	39.80	42.25	42.20	43.25	43.65	42.10	42.05				
	Close	48.70	48.25	47.75	43.57	40.82	43.00	42.65	44.65	45.85	45.27	42.80	43.82				

Source: Chicago Mercantile Exchange T 308



Month-End Open Interest of Live Hogs Futures at Chicago In Contracts

Year	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1979	26,338	27,694	25,613	24,204	27,004	30,108	24,544	25,730	26,155	24,313	26,317	24,966
1980	27,387	27,765	21,857	24,795	25,814	29,011	27,635	28,725	31,696	36,962	38,534	26,816
1981	21,267	21,588	20,767	28,147	31,149	26,639	19,557	20,944	23,471	21,945	22,294	17,924
1982	27,528	29,960	43,387	51,056	63,760	46,002	42,884	51,530	48,263	48,751	47,067	43,791
1983	45,184	41,338	39,469	31,915	31,014	30,794	27,173	33,668	33,425	30.049	30,071	33,820
1984	33,049	35,159	35,289	33,122	34,148	30,517	23,579	24,061	21,048	20,689	26,975	24,037
1985	29,917	27,827	25,738	23,673	22,919	24,807	18,289	19,984	18,390	25,447	27,912	21,680
1986	22,125	21,639	17,123	19,037								

Source: Chicago Mercantile Exchange

T.309

Volume of Trading of Live Hogs Futures at Chicago In Thousands of Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	143.1	137.9	185.4	132.0	145.1	160.9	144.1	164.5	151.3	154.1	162.9	124.5	1,805.7
1980	152.9	122.3	138.3	158.8	133.8	170.8	189.7	188.6	239.1	258.1	195.3	201.4	2,153.8
1981	174.8	182.0	197.5	212.0	230.7	262.9	179.8	153.9	171.9	178.6	160.2	153.7	2,258.1
1982	178.7	195.6	262.6	222.6	288.0	408.3	300.1	344.5	347.2	383.4	324.9	305.1	3,561.0
1983	291.6	254.7	213.8	230.6	254.1	262.1	217.4	279.9	220.8	174.2	197.5	194.2	2,790.7
1984	232.2	212.7	243.8	172.3	211.0	192.6	189.2	143.9	109.1	140.7	181.0	140.5	2,169.0
1985	155.0	128.3	160.2	141.7	156.2	141.9	134.7	120.2	136.1	156.8	145.2	143.5	2,719.9
1986	156.3	108.5	113.7	153.6									

Source: Chicago Mercantile Exchange

T.310

Honey

Production of honey in selected countries during 1985 was expected to be 637,000 tonnes, one percent higher than the 628,000 tonnes (revised) harvested in 1984. In North America, bad weather in the southern half of Canada's prairie provinces caused an estimated 8 percent reduction in output, compared with 1984; while drought conditions in Mexico's principal producing state of Yucatan sharply lowered that country's 1985 output. On the other hand, in South America, projected yields were substantially higher than in 1984. Favorable weather conditions in Brazil were expected to raise output by about 6 percent, and record production was projected for Argentina as a result both of favorable weather and an increase in the number of bee colonies. A rise of 5 percent in output was estimated for the USSR, which is the world's largest producer of honey. The Soviet Union's gains were attributed to several factors: favorable weather conditions; an increase in number of colonies; reduced losses from varroa disease; and enlarged yields through improvement in the availability of apiary supplies and services.

U.S. production was projected as unchanged in 1985, compared with 1984. The U.S. currently has a mandatory price-support program for honey. Under the Agriculture Act of 1949, the price was supported at the minimum of 60 percent of parity, or 65.3 cents per pound in 1985. Under the new Food Security Act, the support price for 1986 is reduced to 64.0 cents per pound and to 63.0 cents in 1987. For 1988 through 1990, the Secretary of Agriculture is authorized to reduce the support price 5 percent annually. The market price for domestically produced honey in 1985 averaged 51.0 cents per pound, while the price of imported honey averaged 35.9 cents, f.o.b. foreign port basis, and 44.1 cents, delivered basis. Despite an import tariff of 1 cent per pound on natural honey, imports into the U.S. have risen steadily in recent years. High U.S. prices, combined with steep tariffs elsewhere (importation of honey into Brazil is flatly prohibited), have all but excluded American-produced honey from the world's principal markets.

World Production of Honey In Thousands of Metric Tons

Year	Argentina	Australia	Brazil	Canada	China (Mainland)	Ethiopia	France	W. Germany	Japan	Mexico	Poland	Spain	Turkey	United States	U.S.S.R.	World Total
1977	22.0	14.9	14.0	25.4	60.0	19.0	8.2	20.0	6.2	60.0	10.0	12.0	21.7	81.0	208.0	798.3
1978	35.0	18.6	16.0	30.6	75.0	20.0	9.5	15.0	8.5	54.0	12.0	11.0	21.7	104.5	179.0	827.7
1979	30.0	25.0	18.0	32.9	110.0	20.0	14.4	9.9	7.5	52.0	13.0	12.0	23.7	107.8	189.0	880.1
1980	33.0	19.5	20.0	29.2	81.0	20.5	12.0	13.5	6.2	60.0	10.0	13.0	23.0	90.6	183.0	837.4
1981	30.0	24.8	24.0	32.9	110.0	21.0	10.0	14.0	6.0	60.0	10.0	13.0	23.0	84.3	184.0	873.8
1982	33.0	22.4	25.0	30.5	136.0		25.0	18.0	7.4	45.0				104.3	186.0	908.8
1983	30.0	25.0	25.0	38.8	143.3			19.0	6.9	68.0				93.0	210.0	970.0
1984[1]	35.0	24.7	26.5	44.1	140.0			16.0	6.8	60.0				75.0	200.0	950.0
1985[1]	40.0	24.5	28.0	40.6	140.0			18.0	6.2	55.0				75.0	210.0	965.0

[1] Preliminary. *Source: Foreign Agricultural Service, U.S.D.A.* T.312

Salient Statistics of Honey in the United States

Year	Number of Colonies Thous.	Yield Per Colony Lbs.	Honey Production; By States								Domestic Disapp.	Imports For Consumption	Domestic Exports	Stocks Jan. 1	Extracted Florida Extra Light[2]	National Average Price Support	Per Capita Consumption Lbs.
			Total U.S.	California	Florida	Iowa	Minnesota	So. Dak.	Texas	Wisconsin							
			In Millions of Pounds												¢ Lb.		
1977	4,346	41.0	178.1	13.7	14.4	6.1	12.0		9.0	9.6	240.8	63.9	5.5	34.3	40.6	32.7	1.09
1978	4,081	56.7	231.5	31.2	23.9	4.6	13.9		8.7	6.3	277.3	56.0	8.0	30.0	45.1	36.8	1.25
1979	4,155	57.4	238.7	17.1	27.3	6.6	15.8	17.3	11.4	8.8	282.7	58.6	8.8	32.2	50.2	43.9	1.26
1980	4,140	48.3	199.8	23.2	20.3	6.3	13.7	8.1	6.9	6.0	226.2	49.0	8.5	38.0	49.7	50.3	.99
1981[1]	4,213	44.1	185.9	9.0	24.1	3.4	8.2	9.2	11.4	4.1	232.0	77.3	9.2	52.1	52.7	57.4	1.01
1982[1]	4,250	54.1	230.0								250.8	92.0	8.5	74.1	54.5	60.4	1.08
1983[1]	4,275	48.0	205.0								277.9	109.8	7.5	136.8		62.2	1.19
1984[1]	4,350	37.9	165.0								281.0	130.0	7.7	165.2		65.8	

[1] Preliminary. [2] Amber, to Water White, Orange. *Source: Crop Reporting Board, U.S.D.A.* T.313

Interest Rates

Interest rates on all maturities trended downward during 1985, continuing a tendency that dated from late 1981. Long-term rates, exemplified by A-rated utility bonds, residential-mortgage loans and corporate bonds, began the year near or just above 13 percent, but ended the year in the range 10 percent to 11 percent. Similarly, short-term rates skidded sharply. Ninety-day Treasury bills, for instance, yielded an average of roughly 9 percent in January 1985, but fell to about 7 percent at year's end.

Part of the credit or blame (depending on one's viewpoint) for this development must be assigned to increases in the money supply. M1, consisting primarily of currency and demand deposits, grew at a very rapid 11.6 percent during 1985, compared with only 5.2 percent the year before. M2—which includes M1 plus savings deposits, money market deposit accounts, non-institutional money market mutual funds, small time deposits, overnight repurchase agreements and Eurodollars—increased 8.6 percent, slightly more than in 1984. The growth of M3—which equals M1 plus M2 plus term repurchase agreements and Eurodollars, institutional money market mutual funds, and large-sized ($100,000 and up) time deposits—came to 8 percent, which was down from 1984's 10.4 percent. The principal, but not the only, factor underlying these changes was, of course, the willingness of the Federal Reserve System to relax its restraints against expansion of money and credit.

No less important as an explanation for sliding interest rates during 1985 was comparatively weak demand for money and credit, particularly during the latter half of the year. Manifested by a steep decline in the income velocity of money, that is, gross national product divided by M1, M2 and M3 (each taken separately), the weakness of demand for loanable funds was attributable to softness in key sectors of the economy, notably large-scale agriculture and heavy manufacturing. That softness stemmed in considerable part from the high value of the U.S. dollar, in terms of other major currencies: U.S. exports were much lower than otherwise, U.S. imports much higher.

One other factor that substantially influenced the level and structure of interest rates in 1985 was the high rate of bank failures, especially among banks whose loan portfolios were overweighted with agricultural and energy-related loans. The resources of the federal insuring agencies were adequate, by and large, to handle the collapse of small institutions. But those losses, combined with the multi-billion dollar losses of major institutions, severely taxed the insuring agencies' resources and, what is more important, created uncertainties in the money markets that surely affected both the demand for and supply of loanable funds.

The predominant view among those who forecast interest rates a year ahead is that the downtrend will come to at least a temporary end at the close of the first half of 1986, and will reverse itself during the second half. Among the assumptions that underlie this projection are that the pace of economic activity will quicken as the year progresses, stimulated in part by abundant credit at rates lower than any in the last six or seven years, and in part by rising exports. It is generally thought unlikely, with the general inflation rate in the range of 3 percent to 4 percent, that the Federal Reserve System would try to restrain growth in the money supply to any significant extent, even if gross national product and employment begin rising more rapidly than they did in 1985.

U.S. Producer Commodity Price Index (Wholesale, All Commodities) 1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1980	254.9	260.2	261.9	262.8	264.2	265.6	270.4	273.8	274.6	277.8	279.1	280.8	268.8
1981	284.8	287.6	290.3	293.4	294.1	294.8	296.2	296.4	295.7	296.1	295.5	295.8	293.4
1982	298.3	298.6	298.0	298.0	298.6	299.3	300.4	300.2	299.3	299.8	300.3	300.7	299.3
1983	299.9	300.9	300.6	300.6	301.5	302.4	303.2	304.7	305.3	306.0	305.5	306.1	303.1
1984	308.0	308.9	311.0	311.3	311.5	311.3	311.9	310.7	309.3	309.4	310.3	309.8	310.3
1985[1]	309.5	309.1	308.6	309.3	309.8	309.2	309.0	307.3	305.5	307.9	309.5	310.2	308.8
1986[1]	309.0	304.7	300.3										

[1] Preliminary. *Source: Bureau of Labor Statistics*

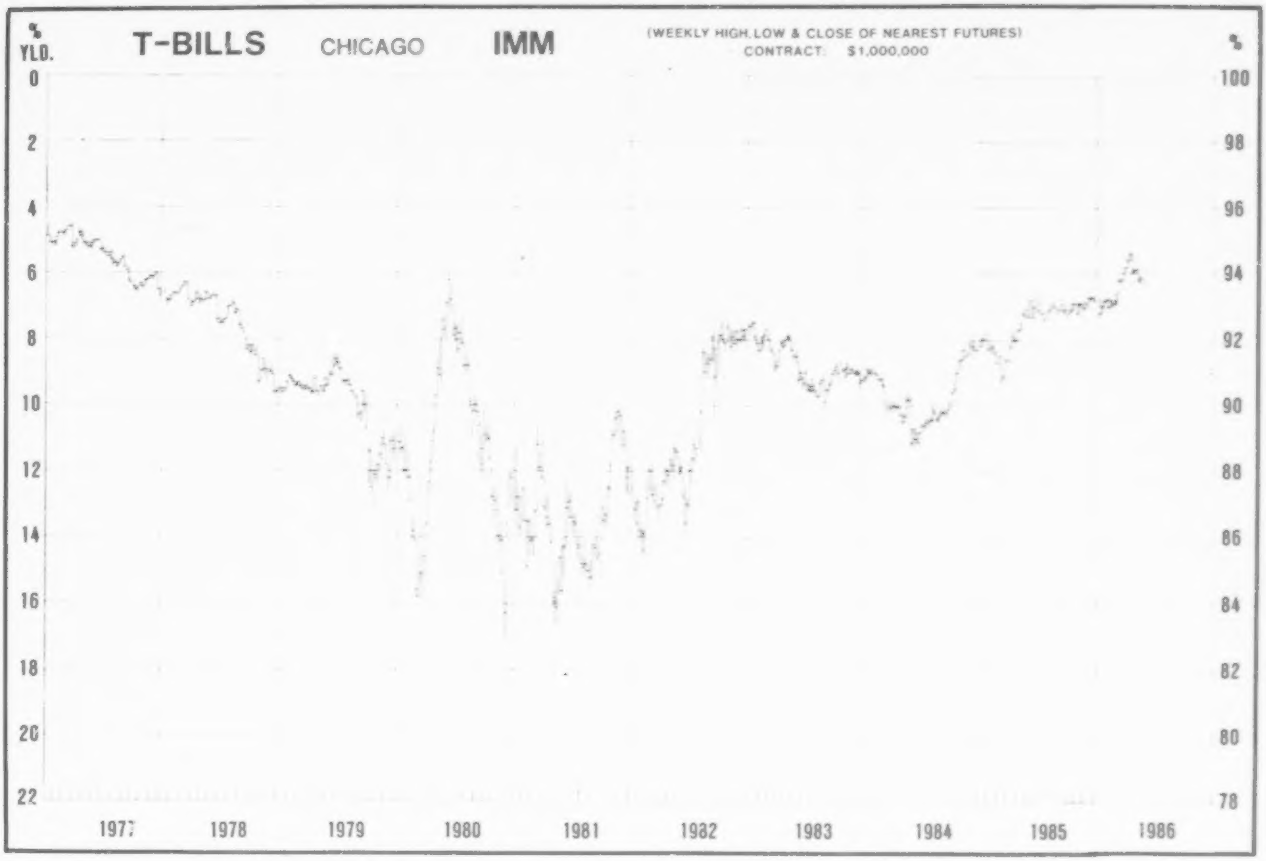
T.315

U.S. Consumer Price Index (Retail Price Index for All Items: Urban Consumers) 1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1980	233.2	236.4	239.8	242.5	244.9	247.6	247.8	249.4	251.7	253.9	256.2	258.4	246.8
1981	260.5	263.2	265.1	266.8	269.0	271.3	274.4	276.5	279.3	279.9	280.7	281.5	272.4
1982	282.5	283.4	283.1	284.3	287.1	290.6	292.2	292.8	293.3	294.1	293.6	292.4	289.1
1983	293.1	293.2	293.4	295.5	297.1	298.1	299.3	300.3	301.8	302.6	303.1	303.5	298.4
1984	305.2	306.6	307.3	308.8	309.7	310.7	311.7	313.0	314.5	315.3	315.3	315.5	311.1
1985[1]	316.1	317.4	318.8	320.1	321.3	322.3	322.8	323.5	324.5	325.5	326.6	327.4	322.2
1986[1]	328.4	327.5	326.0										

[1] Preliminary. *Source: Bureau of Labor Statistics*

T.316



Month-End Open Interest of 13 Wk.[1] Treasury Bill Futures in Chicago In Thousands of Contracts

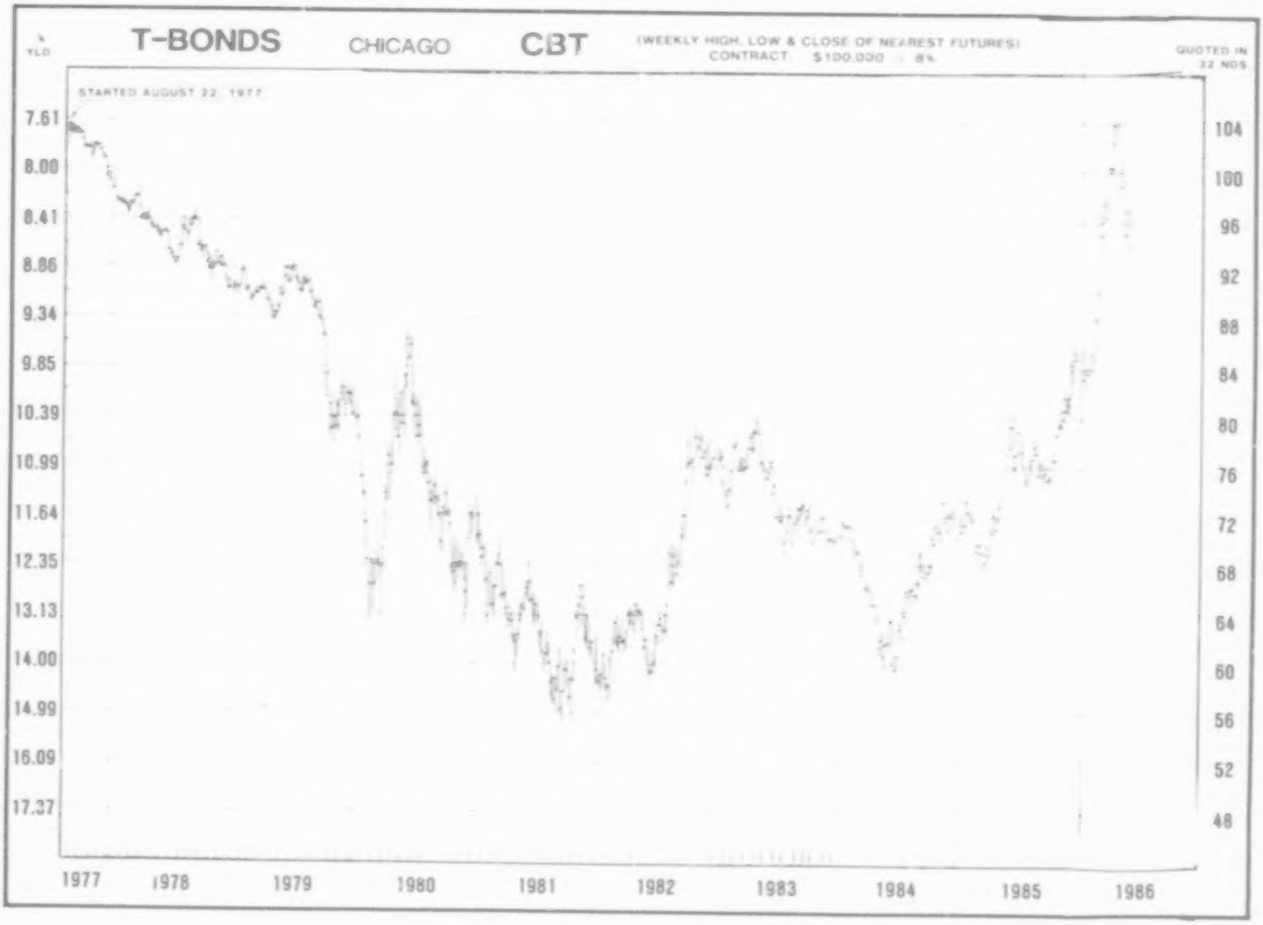
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1979	54.2	54.2	52.7	56.4	63.7	61.2	46.8	40.9	41.4	35.4	42.8	36.5
1980	30.2	25.0	28.5	28.2	24.7	25.2	22.9	23.1	21.4	24.2	39.2	42.9
1981	45.7	38.0	32.8	28.9	35.6	38.9	45.7	43.6	32.3	38.7	36.2	30.1
1982	33.9	33.0	36.5	43.9	52.5	41.4	52.2	59.6	51.1	45.8	50.1	49.0
1983	47.7	46.8	38.6	44.6	43.8	40.4	45.1	39.9	47.8	51.2	52.4	40.8
1984	48.7	50.8	48.8	55.8	52.4	47.5	43.4	44.9	36.8	47.8	45.7	40.7
1985	48.3	46.3	39.4	40.9	36.4	33.7	38.0	36.8	32.9	40.0	39.8	33.3
1986	37.9	47.6	49.2	47.6								

[1] 90-day U.S. Treas. Bill. *Source: International Monetary Market (Chicago)* T 322

Volume of Trading of 13 Wk.[1] Treasury Bill Futures in Chicago In Thousands of Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	89.8	78.6	103.8	111.5	154.7	193.1	182.0	144.5	204.1	251.7	225.8	190.9	1,930.5
1980	237.5	245.4	290.3	350.1	321.2	250.7	224.4	204.9	231.1	274.3	287.7	401.1	3,338.8
1981	446.6	414.4	408.5	407.6	426.1	511.0	487.8	482.0	525.8	516.0	509.5	496.5	5,631.3
1982	503.5	465.5	638.7	529.1	595.4	546.0	615.2	738.4	628.6	521.4	442.4	374.7	6,598.8
1983	302.2	337.9	361.4	308.5	331.4	366.2	283.9	371.1	273.5	309.8	275.7	268.5	3,790
1984	200.0	213.4	304.9	300.2	489.1	342.8	315.1	242.5	201.6	203.6	264.0	215.5	3,293
1985	231.3	245.4	314.5	217.9	206.2	205.6	180.6	165.8	206.8	159.9	142.1	138.1	2,413
1986	175.0	215.4	149.5	212.8									

[1] 90-day U.S. Treas. Bill. *Source: International Monetary Market (Chicago)* T 323



Month-End Open Interest of Treasury Bond Futures in Chicago In Thousands of Contracts

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1979	41.8	45.0	45.9	46.9	53.9	61.5	63.1	65.7	65.4	65.1	74.1	90.7
1980	71.3	66.4	57.1	70.2	84.8	111.1	110.0	117.2	123.2	153.1	204.8	243.6
1981	240.7	223.6	226.1	230.4	241.3	290.9	315.1	295.4	240.5	257.7	248.7	221.7
1982	216.2	192.9	184.4	193.0	181.8	160.6	158.1	162.7	159.0	160.4	175.7	182.9
1983	177.6	142.9	147.5	142.1	130.3	144.5	165.1	142.5	150.0	172.9	193.4	183.7
1984	170.7	163.0	158.4	173.8	192.3	[illegible]	192.3	193.0	188.8	244.6	230.5	202.5
1985	208.3	224.2	214.1	220.2	210.8	[illegible]	223.1	215.8	234.3	309.1	306.3	300.6
1986	321.8	301.9										

Source: Chicago Board of Trade

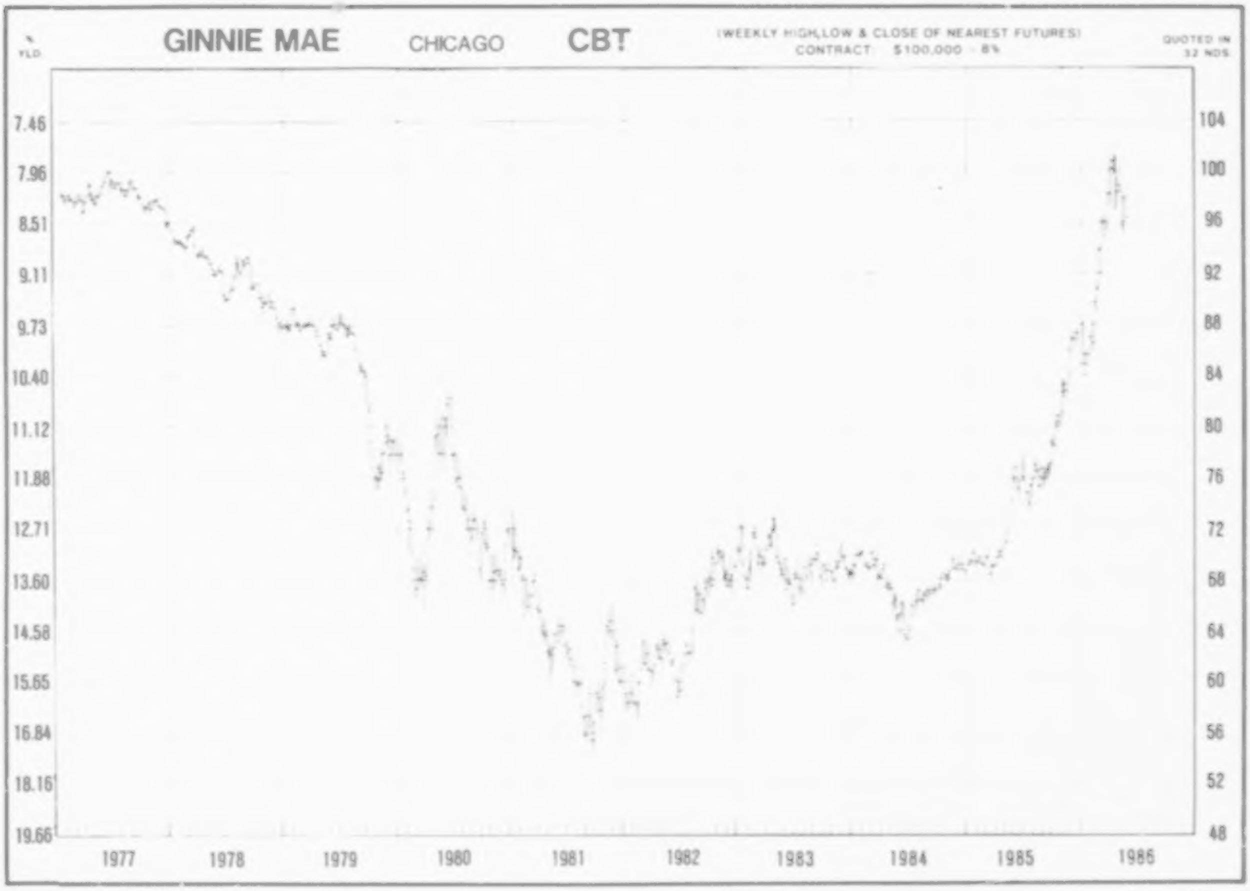
T.317

Volume of Trading of Treasury Bond Futures in Chicago In Thousands of Contracts

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1979	95.3	98.3	95.5	110.4	181.8	169.1	140.5	167.2	221.2	271.1	249.4	259.9	2,059.6
1980	311.1	332.4	349.3	423.4	520.5	608.6	502.7	516.4	501.2	691.6	722.5	1,009.8	6,489.6
1981	846.7	868.6	975.9	998.9	1,178.1	1,094.4	1,081.8	1,191.5	1,313.7	1,289.1	1,691.5	1,377.9	13,908.0
1982	1,266.4	1,306.1	1,413.9	1,259.4	1,408.2	1,254.8	1,145.5	1,669.5	1,474.4	1,644.0	1,545.2	1,352.3	16,739.7
1983	1,333.9	1,447.8	1,600.4	1,262.9	1,679.2	1,704.8	1,579.0	2,312.7	1,605.7	1,839.4	1,687.0	1,497.8	19,551
1984	1,475.7	1,891.3	2,629.4	2,068.7	3,373.8	2,593.9	2,691.7	2,792.2	2,556.6	2,924.2	2,781.2	2,184.9	29,963
1985	2,974	3,250	2,906	2,272	3,339	3,755	3,308	3,409	3,149	3,558	4,118	3,965	40,448
1986	4,640	5,220											

Source: Chicago Board of Trade

T.319



Month-End Open Interest of GNMA (CDR) Futures in Chicago In Thousands of Contracts

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1979	62.4	63.5	62.9	62.8	68.5	73.3	70.6	75.0	77.0	71.0	76.3	89.0
1980	65.9	54.7	46.1	55.5	60.6	71.9	67.6	63.1	67.1	83.2	98.5	115.2
1981	97.0	97.1	99.8	105.7	107.5	121.0	133.9	116.6	96.5	95.2	82.7	77.2
1982	70.0	61.1	64.3	69.3	58.0	51.9	51.8	44.0	45.4	42.2	41.9	40.0
1983	34.9	35.4	45.6	41.3	42.4	44.9	50.0	52.4	45.6	42.2	43.4	37.4
1984	39.1	41.3	36.8	34.7	34.8	24.0	19.1	19.5	10.7	9.9	9.3	7.6
1985	7.4	5.4	3.4	4.1	4.5	3.1	4.5	4.3	4.2	4.3	4.4	2.9
1986	2.9	3.5										

Source: Chicago Board of Trade T.325

Volume of Trading of GNMA (CDR) Futures in Chicago In Thousands of Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.	Oct	Nov	Dec	Total
1979	89.8	79.8	68.1	82.0	99.8	111.8	77.0	95.3	164.9	164.9	157.9	180.4	1,371.1
1980	170.0	155.5	156.3	190.3	219.7	248.4	162.0	151.6	133.9	205.0	214.5	318.7	2,326.3
1981	179.8	159.9	186.5	202.3	228.8	188.5	162.0	156.2	189.8	194.0	242.2	202.8	2,292.9
1982	188.8	184.1	182.6	140.6	159.3	156.3	154.8	222.7	170.5	218.3	143.6	134.0	2,055.6
1983	143.5	133.8	147.7	125.3	176.0	177.7	199.9	166.6	90.9	99.2	126.4	105.2	1,692.0
1984	67.3	118.2	168.9	80.6	97.4	96.4	57.6	62.7	48.6	24.6	23.9	16.2	862.5
1985	13.7	15.2	7.2	4.9	9.3	7.5	6.5	3.9	3.5	4.7	4.0	4.0	84.3
1986	2.5	4.0											

Source: Chicago Board of Trade T.324

High, Low & Closing Prices of June Treasury Bond Futures in Chicago In 32nds of 100%

Year of Delivery		Year Prior to Delivery									Delivery Year						Life of Delivery Range
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
1979	High	95-07	94-10	93-16	92-28	95-06	96-03	94-09	93-31	93-15	92-08	92-09	90-27	90-19	90-09	91-01	98-11
	Low	93-29	92-20	91-26	91-03	92-15	93-08	91-00	92-02	90-09	90-01	89-13	89-09	88-02	87-20	89-16	89-20
	Close	94-03	92-20	91-28	92-20	94-21	93-08	91-11	92-30	90-18	91-23	89-21	90-05	88-06	89-22	90-30	—
1980	High	90-31	90-18	92-13	92-12	91-18	89-18	87-13	84-14	85-00	82-24	75-07	71-24	77-27	83-20	87-07	95-31
	Low	88-24	88-08	89-24	89-27	89-09	87-05	78-11	78-15	80-20	74-07	63-15	64-30	67-12	77-00	78-09	63-15
	Close	88-27	89-31	91-27	90-20	89-11	87-21	80-12	83-01	82-29	75-04	69-00	67-27	77-02	79-14	85-25	—
1981	High	79-21	84-00	85-15	81-08	77-00	75-23	75-04	71-20	73-18	74-22	70-15	70-15	67-17	64-30	67-16	88-08
	Low	71-23	76-30	77-31	74-26	71-27	69-11	67-22	66-05	65-28	69-04	64-05	64-20	61-25	59-11	64-04	59-11
	Close	77-16	79-03	80-23	75-04	73-26	71-10	68-17	70-02	72-06	70-09	65-31	67-02	61-28	64-24	65-13	—
1982	High	68-14	67-25	69-29	66-23	64-30	62-04	61-09	66-24	66-14	62-16	62-26	64-08	64-27	65-05	62-18	74-20
	Low	64-11	62-19	65-28	62-28	59-04	56-08	56-12	58-30	60-20	58-05	57-10	60-22	61-05	62-15	59-01	56-08
	Close	64-15	67-17	65-30	63-01	59-17	57-03	59-05	65-21	62-04	61-01	61-14	61-30	63-06	62-27	59-24	—
1983	High	67-20	66-25	63-30	65-06	69-29	71-05	77-04	77-20	76-24	77-04	77-13	78-08	79-02	80-00	76-29	80-00
	Low	63-22	64-15	60-29	61-27	63-18	67-17	70-09	73-18	73-21	72-14	71-27	74-28	75-31	74-20	73-24	57-28
	Close	65-11	64-15	62-19	64-01	67-20	70-27	75-11	73-28	76-00	72-21	76-22	75-31	78-30	74-21	73-27	—
1984	High	77-00	77-28	74-29	73-05	71-12	72-02	75-15	70-31	70-20	71-06	70-26	68-22	67-00	64-31	63-21	77-28
	Low	74-13	72-29	72-00	67-26	66-28	68-09	69-18	68-23	68-05	68-30	67-22	65-22	64-17	59-16	60-11	58-28
	Close	77-00	72-30	73-03	68-16	68-12	71-23	69-19	70-17	69-15	70-07	68-07	66-07	64-22	60-05	61-19	—
1985	High	65-06	63-06	61-16	63-10	65-04	67-20	70-03	72-05	72-00	73-07	70-14	69-24	72-17	77-14	80-11	80-11
	Low	62-29	57-20	58-05	58-00	62-29	63-12	65-19	68-10	69-15	69-09	66-10	67-08	68-23	70-21	77-13	56-25
	Close	62-31	58-10	58-07	63-01	64-06	66-05	69-14	70-10	70-11	72-03	66-15	69-23	70-24	77-11	79-18	—
1986	High	68-28	73-29	76-07	76-00	75-05	74-29	76-17	79-25	84-25	85-10	96-01	102-12				
	Low	65-19	67-12	72-10	71-09	71-19	71-26	72-04	75-15	78-04	80-20	82-26	92-06				
	Close	67-10	73-28	74-05	72-09	74-02	73-14	76-01	79-15	84-08	84-03	94-00	102-10				
1987	High																
	Low																
	Close																

Source: Chicago Board of Trade

T 320

High, Low & Closing Prices of June GNMA (CDR) Futures in Chicago In 32nds of 100%

Year of Delivery		Year Prior to Delivery									Delivery Year						Life of Delivery Range
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
1979	High	92-15	91-18	89-23	90-08	91-31	92-16	91-13	90-29	90-17	89-16	89-22	88-20	88-09	87-16	88-19	96-20
	Low	91-12	89-10	88-06	87-31	89-24	90-11	88-26	89-15	87-21	87-17	87-12	87-19	85-27	85-14	86-23	85-14
	Close	91-15	89-10	88-07	89-31	91-14	90-24	89-00	90-02	87-30	89-04	87-26	88-00	85-31	86-28	87-20	—
1980	High	88-12	87-09	88-21	88-26	88-03	85-28	82-00	81-16	82-13	79-11	74-11	70-10	76-08	82-05	82-12	93-20
	Low	85-30	85-19	86-20	86-30	85-28	81-27	73-18	75-00	75-16	73-04	65-22	65-18	67-15	76-16	76-18	65-18
	Close	86-02	86-23	88-06	87-16	85-29	82-10	75-31	79-27	79-18	74-00	69-06	68-15	76-00	77-31	81-18	—
1981	High	77-00	82-12	82-02	77-22	74-24	73-15	73-12	70-20	73-04	74-07	70-15	69-16	67-01	64-00	65-16	91-02
	Low	69-02	76-07	76-06	72-23	69-28	68-11	67-06	66-13	65-31	69-00	65-14	65-19	61-30	59-21	63-03	58-21
	Close	76-16	77-15	77-15	73-03	71-14	70-05	67-31	69-07	71-27	70-08	66-21	66-21	62-01	63-23	63-22	—
1982	High	67-06	66-05	67-05	63-03	62-16	60-04	60-12	65-23	65-00	61-07	61-30	63-00	63-07	63-17	61-30	82-16
	Low	63-05	62-14	63-08	60-31	57-10	54-22	55-00	59-10	59-16	57-15	56-19	59-17	60-04	60-29	59-23	54-22
	Close	63-05	65-31	63-08	61-05	57-14	55-15	59-17	64-15	60-29	60-02	60-18	60-20	61-22	62-04	60-04	—
1983	High	62-15	62-23	60-15	61-27	66-12	67-11	69-10	70-00	68-21	71-19	70-27	71-10	72-00	73-00	69-30	73-00
	Low	59-17	60-16	57-21	58-14	60-07	63-19	65-16	65-30	65-22	66-15	66-04	68-04	69-09	68-09	67-01	54-28
	Close	61-03	60-25	59-05	60-28	63-31	66-04	68-11	66-02	63-11	66-22	70-12	69-07	71-27	68.10	67-05	—
1984	High	67-25	70-09	67-31	67-20	67-07	67-29	67-23	68-21	68-05	69-10	69-15	69-15	69-07	67-25	66-20	70-09
	Low	65-03	66-03	65-10	64-14	64-05	65-25	66-01	66-00	66-28	67-09	67-21	67-13	66-29	63-22	63-17	54-29
	Close	67-20	66-03	66-06	65-08	65-11	67-06	66-21	68-06	67-18	68-31	68-08	68-05	67-16	64-01	64-16	—
1985	High	66-02	64-16	62-13	64-05	64-13	66-14	67-13	68-20	68-17	68-12	69-14	69-08	70-10	74-06	77-10	77-10
	Low	64-07	59-29	60-16	60-25	63-19	63-29	65-11	66-11	67-07	66-26	68-07	68-03	68-27	69-21	74-23	57-12
	Close	64-09	60-05	60-22	63-12	64-04	65-18	66-12	67-15	67-22	67-26	68-09	69-00	69-23	74-01	76-28	—
1986	High	67-28	72-06	74-27	75-17	75-02	75-06	78-20	81-22	86-21	87-08	94-05	100-10				
	Low	66-20	67-20	72-22	71-10	71-23	72-30	74-09	78-07	80-22	82-28	85-09	91-04				
	Close	67-11	72-02	73-25	72-06	74-06	74-29	78-09	81-16	86-11	86-10	93-19	100-06				

Source: Chicago Board of Trade

T 326

INTEREST RATES

High, Low & Closing Prices of June 13 Wk. Treasury Bill Futures in Chicago   In Points of 100%

Year of Delivery		Year Prior to Delivery									Delivery Year						Life of Delivery Range
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
1978	High	93.59	93.31	93.69	93.57	93.50	93.51	93.28	93.28	93.29	93.17	93.15	93.33	93.49	93.48	93.41	93.80
	Low	92.52	92.53	93.19	93.01	92.95	93.10	92.80	92.92	92.95	92.63	92.78	93.00	93.03	93.09	93.20	92.26
	Close	92.60	93.22	93.61	93.15	93.38	93.29	92.97	93.25	93.13	92.99	93.13	93.02	93.13	93.21	93.23	—
1979	High	92.12	91.87	91.90	91.81	92.11	92.12	91.55	91.08	90.83	90.74	90.88	90.72	90.87	90.84	91.45	92.83
	Low	91.76	91.62	91.49	91.51	91.62	91.40	90.50	90.39	90.14	90.16	90.35	90.43	90.31	90.30	90.50	90.14
	Close	91.76	91.68	91.55	91.75	91.93	91.51	90.58	90.62	90.22	90.65	90.47	90.51	90.50	90.60	91.06	—
1980	High	90.91	91.55	92.59	92.50	92.30	91.65	91.41	91.22	91.01	90.50	89.05	86.40	89.94	92.73	93.97	93.97
	Low	90.51	90.48	91.34	91.54	90.93	90.36	88.10	88.85	89.21	88.37	86.06	84.20	85.40	89.75	92.00	84.20
	Close	90.62	91.46	92.32	91.89	91.11	91.03	89.29	90.55	90.17	88.84	86.49	85.82	89.90	92.30	92.12	—
1981	High	90.90	92.00	92.64	92.04	91.10	89.61	89.77	88.47	88.89	89.43	89.00	89.38	88.95	85.90	86.48	92.64
	Low	87.51	90.60	91.15	90.65	88.45	87.66	87.47	87.08	85.40	87.31	86.36	86.64	85.52	83.35	84.34	83.35
	Close	90.79	91.60	91.50	90.72	89.13	88.31	87.51	87.25	88.18	88.89	87.19	88.77	85.55	85.39	85.79	—
1982	High	89.20	87.81	88.47	87.86	87.52	87.00	87.61	89.54	89.42	87.85	87.48	88.32	88.16	88.94	88.46	91.26
	Low	87.09	86.03	87.40	86.91	85.95	85.48	85.53	87.42	86.93	85.85	85.45	86.46	86.67	87.41	87.16	85.45
	Close	87.10	87.73	87.92	87.21	86.08	85.60	87.55	89.19	87.76	86.90	86.92	86.83	87.88	88.57	87.18	—
1983	High	87.37	87.82	87.56	87.93	89.12	89.66	91.19	91.43	91.94	92.26	92.40	92.28	92.04	92.22	91.65	92.40
	Low	86.45	87.00	86.32	86.75	87.63	87.95	89.29	90.57	90.67	91.41	91.26	91.12	91.20	91.28	91.12	85.83
	Close	87.29	87.64	86.77	87.72	88.11	89.63	90.70	90.61	91.92	91.45	92.19	91.20	91.98	91.30	91.15	—
1984	High	91.23	91.47	90.60	90.44	90.06	90.51	90.66	90.57	90.47	90.82	90.78	90.48	90.18	90.36	90.37	91.47
	Low	90.63	90.33	90.11	89.55	89.30	89.57	90.32	90.13	90.00	90.32	90.28	89.79	89.77	89.44	90.12	86.50
	Close	91.23	90.34	90.39	89.60	89.59	90.46	90.39	90.39	90.44	90.72	90.38	89.97	89.94	90.18	90.28	—
1985	High	88.92	88.60	87.95	88.47	88.90	89.51	90.12	91.13	91.46	91.81	91.47	91.49	92.25	92.93	93.19	93.19
	Low	88.46	87.16	87.14	87.17	88.28	88.53	89.09	89.45	90.69	91.14	90.78	90.39	91.26	91.98	92.95	87.14
	Close	88.52	87.25	87.20	88.28	88.69	89.15	90.10	90.70	91.16	91.54	90.80	91.41	92.01	92.91	93.09	—
1986	High	90.64	91.68	92.24	92.41	92.17	92.32	92.59	92.91	93.30	93.18	93.53	94.07				
	Low	89.86	90.36	91.58	91.50	91.51	91.74	92.03	92.41	92.72	92.63	92.93	93.38				
	Close	90.37	91.66	91.89	91.62	91.93	92.19	92.51	92.91	93.14	93.13	93.39	94.07				

Source: International Monetary Market (Chicago)   T 321

U.S. Industrial Production Index[1] (Seasonally Adjusted)   1977[3] = 100

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
1978	140.0	140.3	142.1	144.4	144.8	146.1	147.1	148.0	148.6	149.7	150.6	151.8	146.1
1979	152.0	152.5	153.5	151.1	152.7	153.0	153.0	152.1	152.7	152.7	152.3	152.5	152.5
1980	153.0	152.8	152.1	148.2	143.8	141.4	140.3	142.2	144.4	146.6	149.2	150.4	147.0
1981	151.4	151.8	152.1	151.9	152.7	152.9	153.9	153.6	151.6	149.1	146.3	143.4	151.0
1982[3]	105.4	107.0	105.8	104.5	103.6	103.0	102.5	102.0	101.3	100.5	100.6	100.5	103.1
1983	102.5	103.3	104.2	105.6	106.9	107.8	109.8	111.6	113.7	114.4	114.8	115.5	109.2
1984	118.4	119.3	120.1	120.7	121.3	122.3	123.2	123.5	123.3	122.7	123.4	123.3	121.8
1985[2]	123.6	123.7	124.0	124.1	124.1	124.3	124.1	125.2	125.1	124.4	125.4	126.3	124.5
1986[2]	126.7												

[1] Total Index of the Federal Reserve Index of Quantity Output. [2] Preliminary. [3] Data prior to 1982 are for *1967 = 100*. *Source: Federal Reserve System*   T 318

U.S. Federal Funds Rate   In Percent

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
1976	4.87	4.77	4.84	4.82	5.29	5.48	5.31	5.29	5.25	5.03	4.95	4.65	5.05
1977	4.61	4.68	4.69	4.73	5.35	5.39	5.42	5.90	6.14	6.47	6.51	6.56	5.54
1978	6.70	6.78	6.79	6.89	7.36	7.60	7.81	8.04	8.45	8.96	9.76	10.03	7.93
1979	10.07	10.06	10.09	10.01	10.24	10.29	10.47	10.94	11.43	13.77	13.18	13.78	11.19
1980	13.82	14.13	17.19	17.61	10.98	9.47	9.03	9.61	10.87	12.81	15.85	18.90	13.36
1981	19.08	15.93	14.70	15.72	18.52	19.10	19.04	17.82	15.87	15.08	13.31	12.37	16.38
1982	13.22	14.78	14.68	14.94	14.45	14.15	12.59	10.12	10.31	9.71	9.20	8.95	12.26
1983	8.68	8.51	8.77	8.80	8.63	8.98	9.37	9.56	9.45	9.48	9.34	9.47	9.09
1984	9.56	9.59	9.91	10.29	10.32	11.06	11.23	11.64	11.30	9.99	9.43	8.38	10.23
1985	8.35	8.50	8.58	8.27	7.97	7.53	7.88	7.90	7.92	7.99	8.05	8.27	7.41
1986	8.14	7.87											

Source: U.S. Dept. of Commerce   T 318a

High, Low & Closing Prices of June Eurodollar Futures in Chicago   In Points of 100%

Year of Delivery		Year Prior to Delivery									Delivery Year						Life of Delivery Range
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
1984	High	—	—	89.47	89.45	88.85	89.53	89.60	89.40	89.38	89.70	89.68	89.30	88.90	88.57	88.50	89.70
	Low	—	—	89.06	88.37	88.04	88.38	89.26	88.97	88.71	89.14	89.09	88.57	88.47	87.59	88.15	87.59
	Close	—	—	89.44	88.46	88.43	89.46	89.26	89.26	89.31	89.58	89.19	88.72	88.54	88.03	88.38	—
1985	High	87.35	86.89	86.18	87.03	87.47	88.30	88.94	89.92	90.23	90.88	90.50	90.25	91.31	92.25	92.59	92.59
	Low	86.74	84.83	85.17	85.27	86.78	86.69	87.66	88.85	89.39	89.83	89.42	88.97	90.03	91.00	92.18	84.83
	Close	86.80	84.99	85.30	86.82	86.99	87.82	88.87	89.47	89.88	90.57	89.45	90.23	91.05	92.24	92.44	—
1986	High	89.44	90.47	91.15	91.16	90.98	91.14	91.55	91.93	92.34	92.19	92.55					
	Low	88.34	88.93	90.38	90.17	90.25	90.40	90.83	91.40	91.59	91.53	91.76					
	Close	88.94	90.46	90.79	90.31	90.72	90.97	91.46	91.82	92.14	92.02	92.39					

Source: International Monetary Market (IMM)—Chi. Merc. Exch.   T.0564

Month-End Open Interest of Eurodollar Futures in Chicago   In Thousands of Contracts

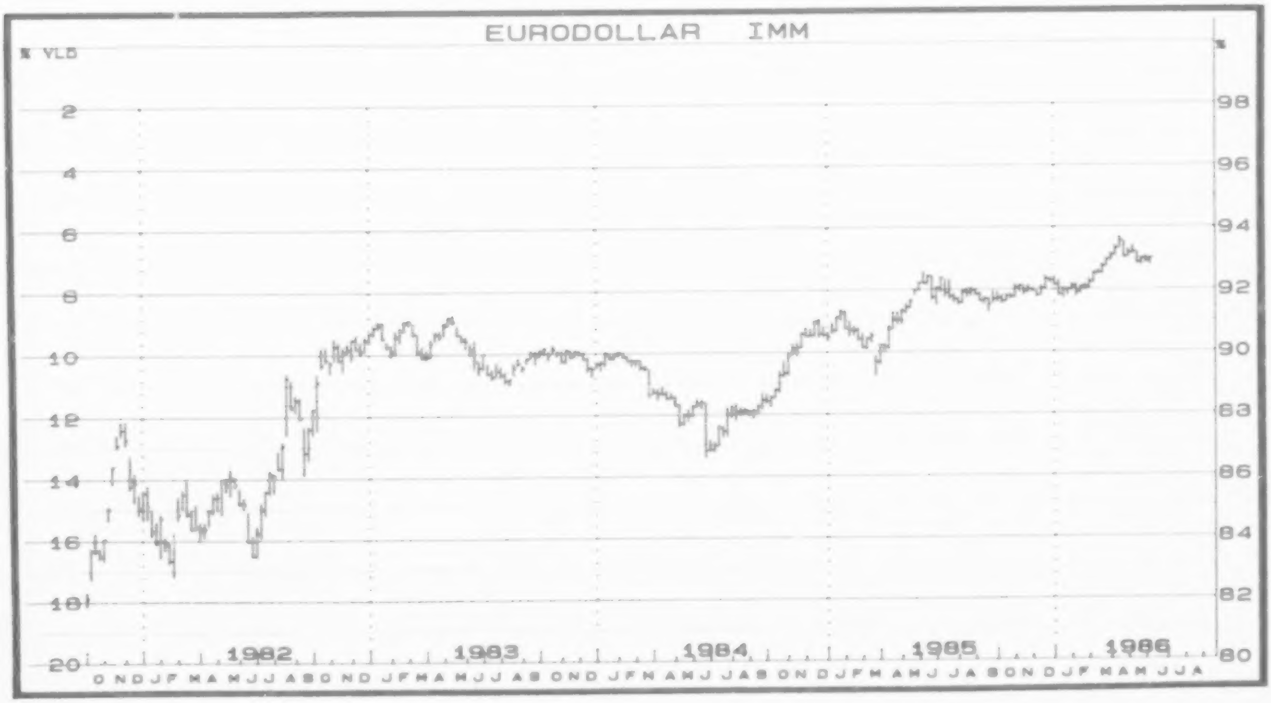
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1983	22.2	21.5	21.9	22.9	23.4	27.4	31.9	31.8	34.0	43.1	45.4	45.6
1984	50.3	60.6	62.0	74.2	90.3	89.3	95.1	94.6	78.1	89.9	96.2	85.1
1985	105.5	105.5	98.4	110.0	130.7	116.3	128.9	131.4	122.0	144.2	165.3	121.5
1986	145.3	155.3										

Source: International Monetary Market (IMM)—Chi. Merc. Exch.   T.0564A

Volume of Trading of Eurodollar Futures in Chicago   In Thousands of Contracts

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1983	41.3	48.4	70.3	52.0	56.3	96.5	72.1	91.8	78.6	81.3	87.1	115.3	891.1
1984	104.8	127.4	235.4	202.2	434.7	448.1	438.6	354.5	435.3	491.1	532.4	388.4	4,193
1985	524.7	723.6	877.2	764.7	753.7	891.5	798.0	697.5	769.1	694.3	695.4	710.7	8,901
1986	888.5	825.1											

Source: International Monetary Market (IMM)—Chi. Merc. Exch.   T.0564B



High, Low & Closing Prices of June T-Note Futures in Chicago In 32nds of 100%

Year of Delivery		Year Prior to Delivery									Delivery Year						Life of Delivery Range
		Apr.	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
1984	High	—	—	80-30	79-19	79-07	80-07	80-24	79-21	79-05	79-25	79-23	78-09	76-28	75-09	74-12	80-30
	Low	—	—	80-02	76-31	75-19	77-02	78-13	77-26	77-16	78-03	77-17	75-24	74-29	70-17	71-14	70-17
	Close	—	—	80-28	77-01	76-28	79-30	78-13	79-06	78-12	79-11	78-00	76-02	75-03	71-05	72-14	—
1985	High	—	—	70-15	73-23	75-03	77-07	79-03	81-07	80-22	82-03	80-28	79-18	82-08	86-27	89-18	89-18
	Low	—	—	69-23	71-16	73-30	74-15	75-24	78-05	78-16	78-19	77-19	77-11	78-23	80-27	87-00	69-23
	Close	—	—	69-17	73-23	74-10	76-02	78-25	79-09	79-07	81-07	77-28	79-14	81-02	86-24	88-20	—
1986	High	78-27	83-07	85-17	84-29	84-24	84-15	86-10	88-19	92-17	92-21	100-03					
	Low	76-07	78-03	81-15	81-00	81-14	82-18	82-31	85-23	87-22	89-05	91-00					
	Close	77-28	83-04	82-30	81-27	83-27	83-26	85-28	88-13	92-02	92-07	98-15					

Source: Chicago Board of Trade T.0565

Month-End Open Interest of T-Note Futures in Chicago In Thousands of Contracts

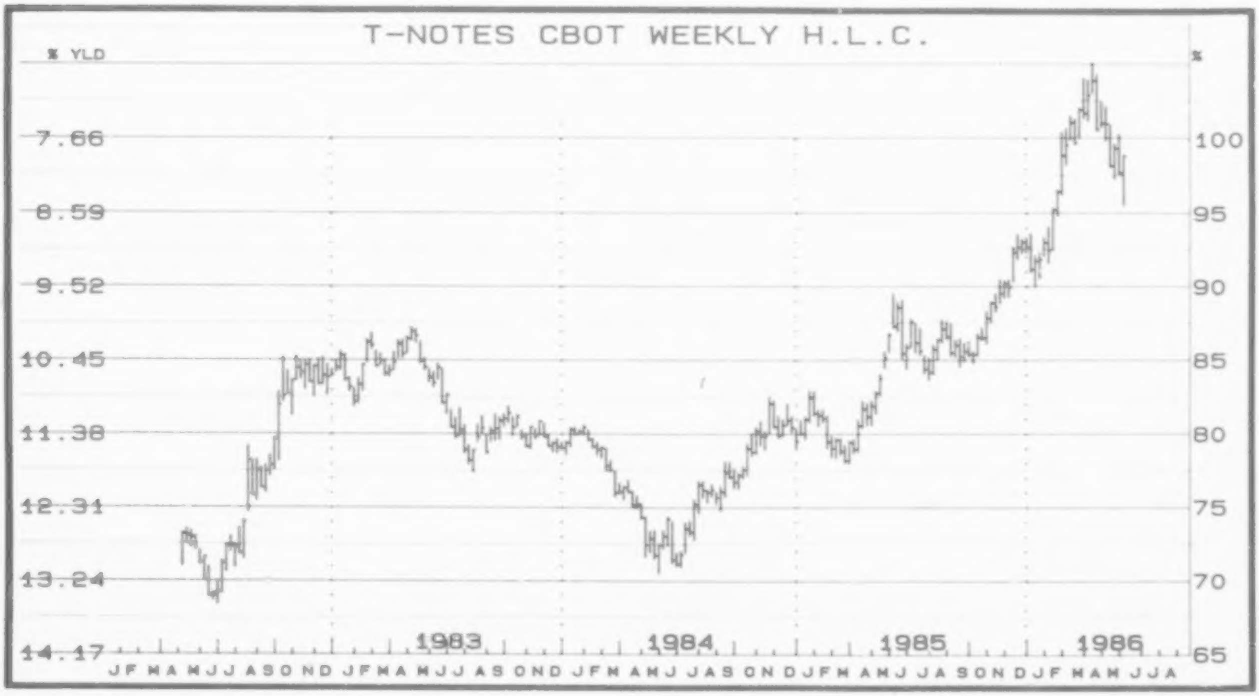
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1983	10.3	9.6	7.9	8.0	6.7	8.7	9.5	12.9	10.1	13.2	15.3	14.2
1984	19.6	23.3	21.8	28.1	32.5	32.3	36.5	32.8	30.3	34.7	33.7	36.0
1985	41.4	48.7	43.9	45.1	50.7	49.4	62.1	57.7	57.2	70.5	64.5	70.5
1986	79.1	76.5										

Source: Chicago Board of Trade T.0565A

Volume of Trading of T-Note Futures in Chicago in Thousands of Contracts

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1983	62.7	76.9	71.5	51.7	69.6	68.8	61.1	93.9	60.3	57.7	74.8	65.5	814.5
1984	59.7	110.5	126.8	105.3	199.1	145.1	147.2	162.8	139.5	149.2	166.0	150.7	1,662
1985	171.8	216.0	215.9	175.8	274.9	266.9	219.4	282.9	212.7	234.3	297.5	292.5	2,860
1986	269.7	401.4											

Source: Chicago Board of Trade T.0565B



High, Low & Closing Prices of June Domestic Bank (3 month) CD Futures in Chicago In Points of 100%

Year of Delivery		Year Prior to Delivery									Delivery Year							Life of Delivery Range
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
1984	High	—	—	—	89.82	89.25	89.88	89.93	89.74	89.75	90.14	90.10	89.75	89.34	89.00	88.89	90.14
	Low	—	—	—	88.78	88.45	88.77	89.59	89.30	89.11	89.52	89.54	88.99	88.89	88.00	88.20	88.00
	Close	—	—	—	88.87	88.82	89.80	89.59	89.62	89.69	90.00	89.63	89.13	88.96	88.46	88.33	—
1985	High	87.76	87.31	86.65	87.45	87.90	88.69	89.33	90.29	90.61	91.21	90.78	90.67	91.65	92.60	92.89	92.89
	Low	87.14	85.30	85.60	85.71	87.22	87.13	88.08	89.24	89.78	90.23	89.82	89.39	90.45	91.38	92.45	85.30
	Close	87.21	85.46	85.75	87.27	87.43	88.24	89.26	89.86	90.28	90.89	89.84	90.65	91.43	92.59	92.59	—
1986	High	89.82	90.83	91.45	91.49	91.29	91.39	91.80	92.19	92.64	92.49	92.84					
	Low	88.34	89.31	90.80	90.56	90.60	90.76	91.18	91.79	90.00	91.86	92.14					
	Close	88.34	90.83	91.10	90.64	91.03	91.30	91.76	92.13	90.00	92.33	92.72					

Source: International Monetary Market (IMM)—Chi. Merc. Exch. T.0566

Month-End Open Interest of Domestic Bank (3 month) CD Futures In Thousands of Contracts

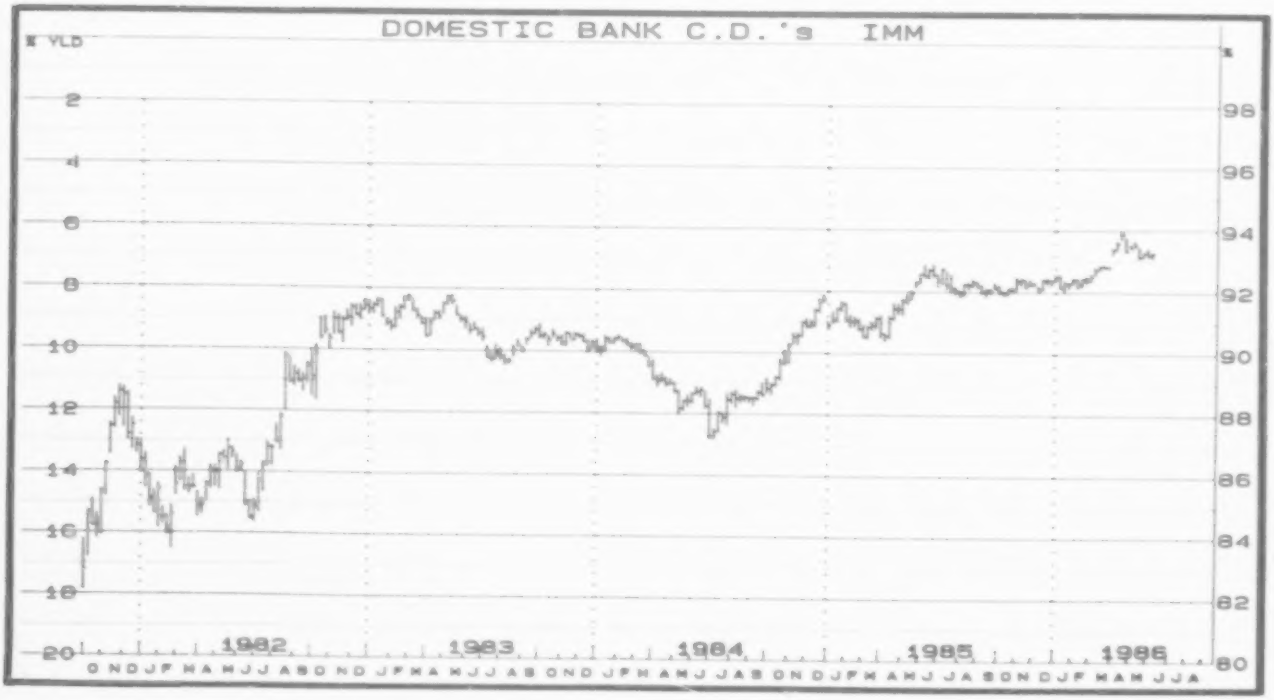
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1983	16.0	14.6	13.2	13.0	14.7	14.9	18.8	19.5	20.5	24.9	23.6	24.0
1984	27.5	28.5	31.0	36.2	34.8	29.4	28.6	25.0	20.0	19.0	16.8	14.6
1985	13.6	12.3	6.7	5.8	5.0	3.5	3.4	2.4	1.9	2.0	1.8	.9
1986	.9	.9										

Source: International Monetary Market (IMM)—Chi. Merc. Exch. T.0566A

Volume of Trading of Domestic Bank (3 months) CD Futures In Chicago In Thousands of Contracts

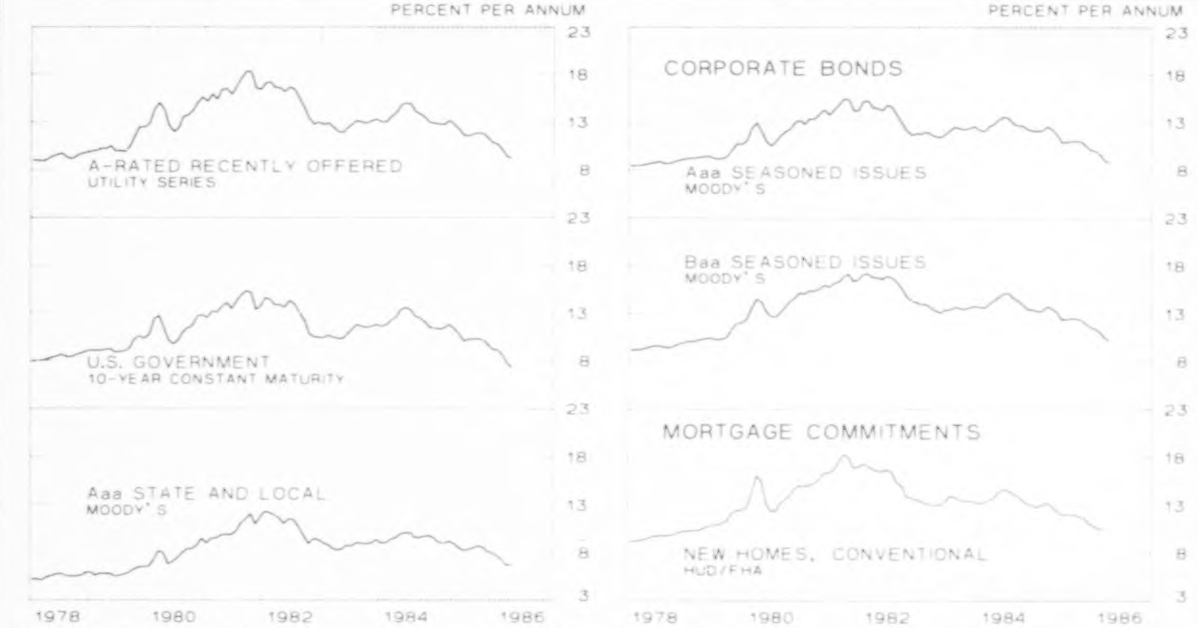
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1983	67.5	86.8	94.7	70.0	83.4	128.9	90.0	118.3	85.9	78.3	79.0	96.8	1,080
1984	74.5	81.6	134.4	110.2	187.7	114.4	66.3	51.1	41.3	22.9	25.0	19.2	928.7
1985	14.1	12.4	17.3	8.2	8.5	6.8	3.7	4.5	2.9	1.1	1.8	2.8	84.1
1986	1.0	.8											

Source: International Monetary Market (IMM)—Chi. Merc. Exch. T.0566B



LONG-TERM INTEREST RATES

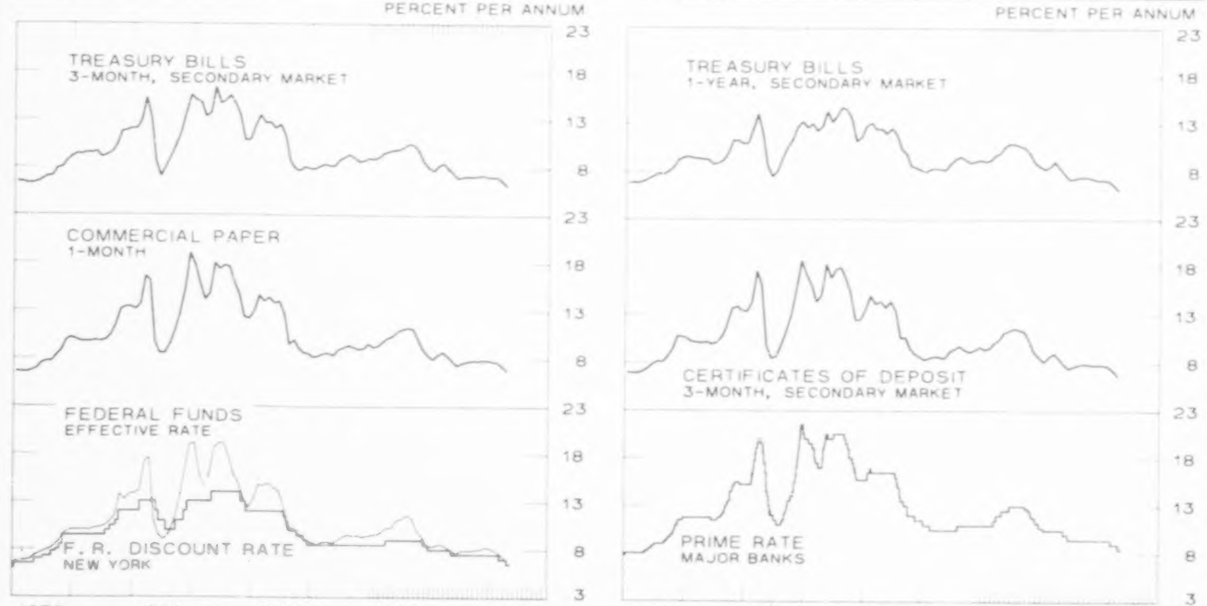
MONTHLY AVERAGES



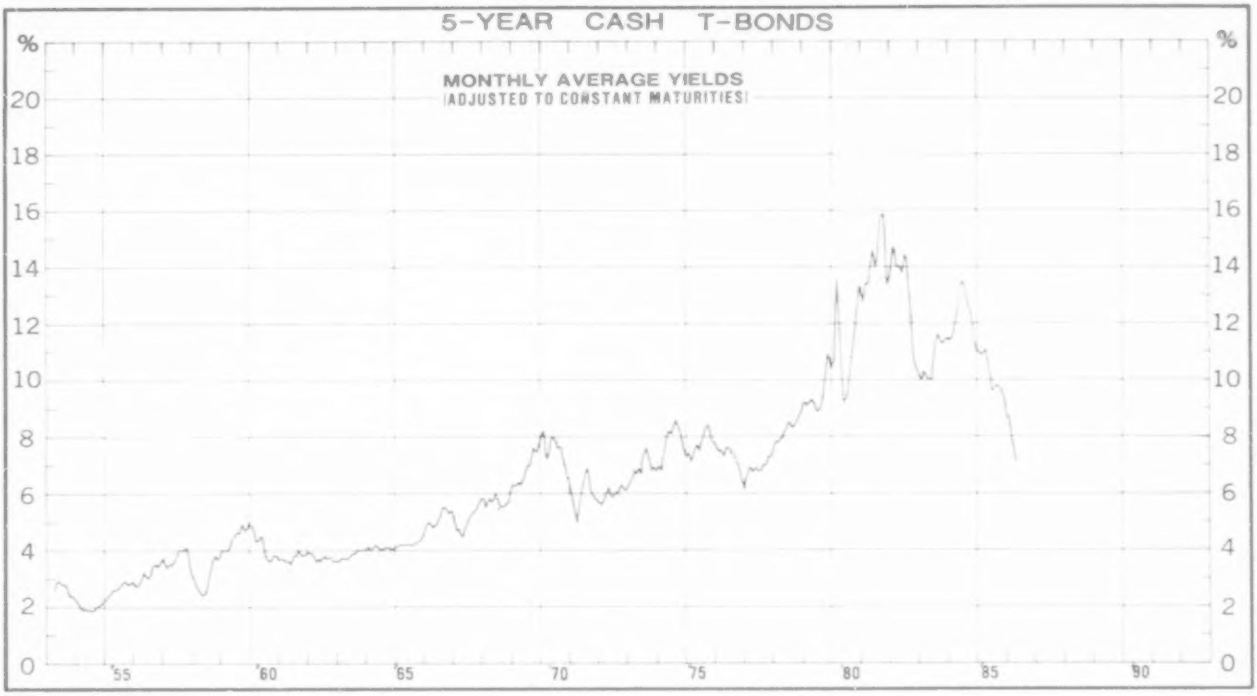
SOURCE: Board of Governors of the Federal Reserve System.

SHORT-TERM INTEREST RATES

MONTHLY AVERAGES, EXCEPT FOR DISCOUNT AND PRIME RATES, WHICH ARE EFFECTIVE DATES OF CHANGE



SOURCE: Board of Governors of the Federal Reserve System.



U.S. Money Supply M1 in 1982[2] Dollars In Billions of Dollars

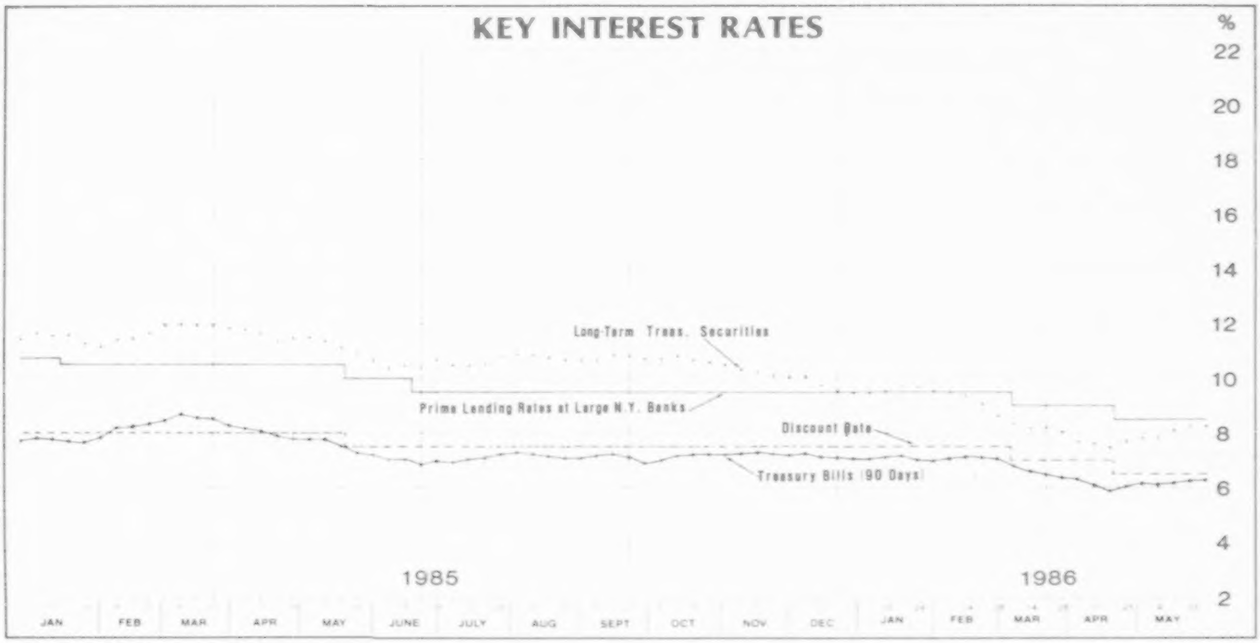
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1976	222.5	223.9	224.1	224.5	225.0	224.1	223.8	223.9	223.7	224.9	225.0	225.3	224.2
1977	221.2	220.9	221.0	221.5	221.2	220.9	221.2	221.2	221.8	222.6	222.8	223.1	221.6
1978	224.3	223.1	222.7	223.6	223.7	223.3	222.6	222.1	222.6	221.0	221.2	221.4	222.6
1979	222.4	220.8	220.6	221.9	219.6	219.7	219.3	218.3	216.8	215.0	213.4	211.9	218.3
1980	209.9	209.0	206.2	201.6	199.3	199.7	201.7	203.9	204.7	204.9	203.6	200.2	204.2
1981	200.5	200.0	200.3	202.0	199.9	198.2	197.1	196.5	194.9	194.3	194.8	196.4	197.8
1982	199.2	197.9	198.0	198.2	197.1	195.3	194.5	196.1	198.5	200.6	203.2	205.6	198.7
1983	206.7	209.2	211.4	211.5	213.4	214.6	215.8	216.6	216.7	217.4	217.6	217.7	213.8
1984[2]	502.4	503.1	504.6	504.5	506.7	509.9	507.9	507.6	508.2	504.9	508.2	510.8	506.6
1985[1]	513.8	518.1	518.3	519.6	524.6	530.9	534.6	541.2	546.1	546.4	548.6	552.4	532.9
1986[1]	551.0												

[1] Preliminary. [2] Data prior to 1984 are in 1972 dollars. *M1*—This measure is currency, travelers checks, plus demand deposits at commercial banks and interest-earning checkable deposits at all depository institutions. *Source: Federal Reserve System* T 327

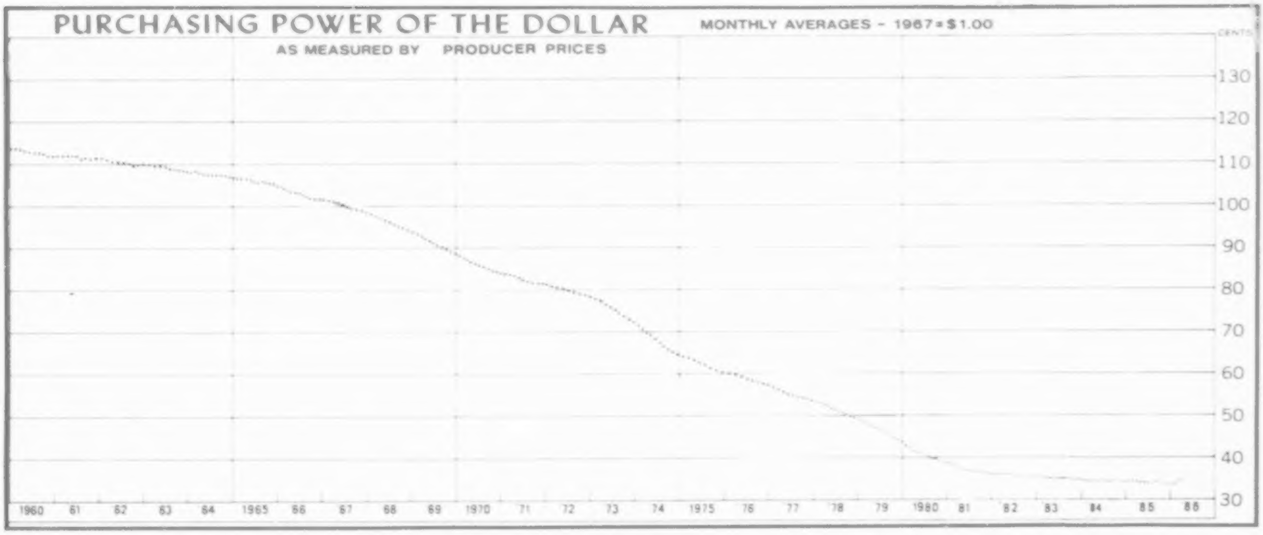
U.S. Money Supply M2 in 1982[2] Dollars In Billions of Dollars

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1976	774.0	784.7	790.1	796.8	803.7	803.6	805.1	811.2	815.6	822.6	828.5	835.4	805.9
1977	840.1	841.9	845.1	848.3	852.7	853.7	856.1	859.2	861.7	865.3	866.5	868.1	854.9
1978	686.6	867.6	867.2	867.0	865.4	863.2	862.1	863.0	863.1	862.0	862.4	861.7	864.4
1979	860.7	857.4	856.8	857.0	853.9	853.2	850.7	848.9	845.5	838.7	833.0	827.7	848.6
1980	818.6	815.6	808.9	799.3	798.2	800.1	810.1	814.6	812.0	808.8	807.7	800.0	812.3
1981	787.2	786.3	788.3	793.8	790.9	788.5	784.9	786.4	784.2	787.9	792.0	798.6	789.1
1982	802.7	803.0	807.5	810.4	809.2	805.4	806.3	812.8	819.3	822.9	830.1	841.1	814.2
1983	857.2	873.5	879.7	880.0	883.2	887.1	889.0	890.6	893.0	898.0	900.7	902.4	888.7
1984[2]	2,082	2,088	2,094	2,097	2,107	2,114	2,118	2,120	2,127	2,134	2,153	2,171	2,117
1985[1]	2,191	2,204	2,200	2,197	2,208	2,227	2,238	2,251	2,259	2,258	2,256	2,261	2,229
1986[1]	2,255												

[1] Preliminary. [2] Data prior to 1984 are in 1972 dollars. *M2*—This measure adds to M1 overnight repurchase agreements (RP's) issued by commercial banks and certain overnight Eurodollars (those issued by Caribbean branches of member banks) held by U.S. nonbank residents, general purpose and broker/dealer money market mutual fund shares (MMMF), and savings and small-denomination time deposits. *Source: Federal Reserve System* T 326



KEY INTEREST RATES



PURCHASING POWER OF THE DOLLAR

AS MEASURED BY PRODUCER PRICES

MONTHLY AVERAGES - 1967=$1.00

U.S. Gross National Product, National Income, and Personal Income In Billions of Current Dollars[1]

	Gross National Product					National Income					Personal Income				
Year	I	II	III	IV	Annual Avg.	I	II	III	IV	Annual Avg.	I	II	III	IV	Annual Avg.
1976	1,672	1,699	1,729	1,773	1,718	1,346	1,364	1,389	1,418	1,379	1,349	1,374	1,404	1,438	1,391
1977	1,835	1,895	1,954	1,989	1,918	1,471	1,528	1,585	1,618	1,551	1,476	1,514	1,558	1,604	1,538
1978	2,032	2,140	2,203	2,282	2,156	1,653	1,737	1,792	1,858	1,760	1,638	1,692	1,748	1,809	1,722
1979	2,336	2,378	2,455	2,503	2,418	1,907	1,941	1,994	2,025	1,967	1,872	1,917	1,982	2,034	1,951
1980	2,573	2,579	2,639	2,736	2,632	2,076	2,073	2,118	2,200	2,117	2,092	2,118	2,186	2,265	2,165
1981	2,979	3,018	3,100	3,114	3,053	2,388	2,415	2,483	2,487	2,444	2,441	2,485	2,568	2,591	2,521
1982	3,113	3,160	3,179	3,213	3,166	2,483	2,514	2,528	2,548	2,518	2,614	2,656	2,684	2,729	2,671
1983	3,269	3,365	3,438	3,535	3,402	2,604	2,679	2,747	2,844	2,718	2,753	2,806	2,852	2,935	2,836
1984[2]	3,677	3,758	3,812	3,853	3,775	2,968	3,021	3,064	3,104	3,039	3,034	3,084	3,144	3,186	3,112
1985[2]	3,918	3,961	4,017	4,062	3,989	3,155	3,192	3,228		3,212	3,244	3,280	3,299	3,354	3,293

[1] Seasonally adjusted at annual rates. [2] Preliminary. [3] Forecast. *Source: U.S. Dept. of Commerce* T.329

Iron and Steel

Just under 800 million long tons of iron ore were mined throughout the world in 1985, about 30 percent of it in the Soviet Union, 11 percent each in Australia and Brazil, and 6 percent in the U.S. More than one-fourth of the reserve base of iron content is in the U.S.S.R., another fifth in Australia, and one-sixth in the U.S. and Canada combined.

Iron-ore output in the U.S. in 1985 was approximately 48.5 million long tons, off about 5 percent from 1984. The decline was attributed to weak demand for domestic ore, in the face of sizeable imports of both crude ore and finished iron and steel. The upshot was substantial under-employment of the ore industry's plant and equipment. Imports, which amounted to 16 million long tons or one-third of total domestic production, came chiefly from Canada (54 percent of total tonnage), Brazil (16 percent), Liberia (14 percent) and Venezuela (13 percent).

All of the domestic supply of ore, i.e., production plus imports, equalling 64 million long tons, was consumed, seven-eights of it in blast furnaces and most of the remainder in agglomerating plants. The price range for natural ore, basis 51.5% Fe, remained unchanged during 1985 for the third consecutive year, at $30.03–$32.78. For pellets, the price for long ton unit of Fe ranged from 58 cents to 86.9 cents vs. 80.5–86.9 cents in each of the three prior years.

For the balance of the 1980s, little change from the conditions prevalent in 1985 was foreseen for production and consumption of domestic iron ore.

The long-term decline in the domestic iron and steel industry resumed in 1985. Output of pig iron eased off from 52 million tons in 1984 to 50.2 million in 1985, and raw-steel production slid from 93 million tons in 1984 to about 89 million in 1985. Imports of major iron and steel products amounted to an estimated 25.5 million tons, which was 25 percent higher than in 1981.

Reported consumption of pig iron in 1985 about equalled estimated output; imports were negligible. The price of pig iron per ton was steady at $213. Apparent consumption of steel and cast iron came to about 108 million tons versus 111 million in 1984, a drop of roughly 3 percent; exports were unchanged at a nominal 1.4 million tons. *Iron Age*'s composite for the finished-base price moved up for the fourth straight year, hitting 27.6 cents per pound, as against 27.3 cents in 1984 and 25.3 cents in 1982.

Total output of scrap iron and steel in 1985 amounted to almost 77 million tons. Imports for consumption were inconsequential at 600,000 tons. Exports, on the other hand, were substantial, amounting to nearly 9 million tons or more than one-ninth of total domestic output. Apparent consumption of scrap in 1985 was 69 million tons, up about 5 percent from 1984 and up better than 20 percent from recession-gripped 1982.

Three pieces of federal legislation, all enacted in 1985, were designed to benefit the scrap-iron and -steel industry. The Shipping Act of 1984, which became law in the fall of 1985, gives scrap exporters a tariff-filing exemption previously given only to bulk-cargo shippers. In late June 1985, the Export Administration Act was reauthorized, clarifying the foreign-availability test and requiring the President to consult with an affected industry before imposing foreign-policy controls. Finally, the Resource Conservation and Recovery Act of 1980 was amended to require all federal agencies to maximize procurement of goods from recycled materials.

World Production of Raw Steel (Ingots & Castings) In Millions of Short Tons

Year	Belgium	Brazil	Canada	Czechoslovakia	China	France	Italy	Japan	South Korea	Poland	Spain	South Africa	United Kingdom	United States	USSR	W. Germany	World Total
1978	13.9	13.3	16.4	16.9	35.0	25.2	26.8	112.6	5.5	21.2	12.4	8.7	22.4	137.0	166.9	45.5	787.9
1979	14.9	15.3	17.7	16.3	38.0	25.8	26.7	123.2	8.4	21.2	13.6	9.8	23.6	136.3	164.4	50.8	821.1
1980	13.7	16.9	17.5	16.8	40.9	25.5	29.2	122.8	9.4	21.5	13.9	10.0	12.4	111.8	163.1	48.3	789.5
1981	13.6	14.6	16.3	16.8	39.2	23.4	27.3	112.1	11.9	17.3	14.2	9.9	17.2	120.8	163.6	45.9	779.6
1982	10.9	14.3	13.0	16.5	41.0	20.3	26.4	109.7	13.0	16.3	14.5	9.1	15.1	74.6	162.2	39.6	709.9
1983[1]	11.2	16.2	14.1	16.6	44.0	19.4	23.9	107.1	13.1	17.9	14.0	7.7	16.5	84.6	168.1	39.4	730.3
1984[1]	12.4	20.3	16.2	16.3	47.8	20.9	26.5	116.4	14.4	18.2	14.9	8.6	16.7	92.5	170.0	43.4	778.9
1985[2]					49			118						89	172		788

[1] Preliminary. [2] Estimate. *Source: Bureau of Mines* T.330

Average Wholesale Prices of Iron and Steel in the U.S. In Dollars Per Net Ton

Year	Pig Iron				No. 1 Heavy Melting Steel Scrap		Cents Per Pound at Pittsburgh								
	Bessemer Neville Isl., Pa.	Iron Age Composite	No. 2 F.O.B. Birmingham	Steel Billets Pitts.	Pitts.	Chicago	Tin Plate (¼ Lb.)	Hot Rolled Sheet[2]	Steel Bars		Structural Shapes	Carbon Steel Plates	Cold Rolled Strip	Galvanized Sheets	Wire Rods-Chi. $Gr. Ton
									Hot Rolled	Cold Finished					
1978	190.00	198.31	191.00	282.88	78.48	73.98	18.0–20.4	15.36	14.01	22.80	15.73	16.53	22.49	20.21	16.80
1979	190.00	203.00	191.00	302.00	100.77	96.69	19.1–23.4	17.05	16.20	25.07	17.36	18.46	24.1[illegible]	22.40	17.22
1980	200.83	203.00	191.00	348.70	95.48	86.70	23.3–24.9	18.21	19.59	28.95	18.98	20.57	27.15	23.56	19.09
1981	209.67	204.66	205.33	358.00	100.57	91.76	24.9–26.7	20.13	16.95	29.45	21.32	23.04	30.23	26.05	20.27
1982	213.00	213.00	213.00	358.00	66.47	57.78	26.3–27.9	20.80	17.23	31.06	22.90	24.25	29.75	26.90	20.48
1983	213.00	213.00	213.00	358.00	76.99	72.42	27.7–29.3	22.16	20.25	28.50	22.90	25.45	33.45	28.23	20.48
1984[1]	213.00	213.00	213.00	368.00	92.71	83.12	29.0–30.7	23.60	22.08	29.87	22.78	24.50	35.30	30.15	20.48
1985[3]					77.43	72.89									

[1] Preliminary. [2] 10 gauge. [3] Estimate. *Source: American Metal Market* T.337

IRON AND STEEL

Salient Statistics of Steel in the United States In Millions of Short Tons

			Production										
			Steel Ingots and Castings						Alloy Steel[2]			Shipments of Steel Products	
	Value of			Open Hearth									
Year	Exports —(Million $)—	Imports	Basic Oxygen	Acid	Basic	Bessemer	Electric[3]	Total Production	Stainless	Other	Total Production	Domestic Consumption	Export
1977	2,284	5,936	77.4	[5]	20.0	[5]	27.9	125.3	1.9	15.3	17.2	88.0	3.1
1978	2,285	7,658	83.5	[5]	21.3	[5]	32.2	137.0	2.0	18.2	20.2	94.6	3.3
1979	2,804	7,823	83.3	[5]	19.2	[5]	33.9	136.3	2.1	18.0	20.1	98.3	2.0
1980	3,728	7,792	67.6	[5]	13.1	[5]	31.2	111.8	1.7	15.4	17.1	83.9	2.6
1981	3,649	11,286	73.2	[5]	13.5	[5]	33.2	119.9	1.7	17.6	19.3	88.4	1.8
1982	2,734	10,394	45.3	[5]	6.1	[5]	21.5	74.6	1.2	9.2	10.4	61.6	.8
1983	1,783	7,238	52.0	[5]	6.0	[5]	26.6	84.6	1.8	9.1	10.9	67.6	.5
1984[1]	1,627	11,495	52.8	[5]	8.3	[5]	31.4	92.5	1.8	10.8	12.6	73.7	.4
1985[4]			51.9		6.4		29.0	87.3	1.7	9.8	14.3	73.0	

[1] Preliminary. [2] Included under total steel production. [3] Includes crucible steels. [4] Estimate. [5] No longer published. *Sources: American Iron & Steel Institute; U.S. Bureau of Mines.* T 331

U.S. Production of Steel Ingots, Rate of Capability Utilization[1] In Percent

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1978	77.2	80.1	83.1	88.5	91.5	91.1	85.1	86.3	88.6	89.8	89.4	87.7	86.8
1979	83.5	87.9	94.5	93.4	94.8	93.7	89.9	86.0	82.8	84.4	80.6	78.0	87.8
1980	82.7	85.3	88.4	83.0	69.6	58.4	53.1	54.4	62.6	72.2	79.5	77.8	72.8
1981	79.9	83.7	88.6	87.7	86.2	81.5	77.6	77.3	75.9	68.7	62.8	58.6	78.3
1982	59.3	60.9	61.7	55.2	50.9	47.7	43.8	42.4	41.9	40.2	35.9	34.0	48.4
1983	43.4	49.0	55.5	58.9	57.9	56.5	54.3	55.1	57.8	60.2	58.7	54.7	55.4
1984	69.6	76.0	79.1	80.8	79.8	71.4	65.3	60.5	57.7	58.4	57.8	52.4	68.4
1985[2]	60.9	66.1	72.1	71.6	68.9	66.3	62.1	63.2	63.4	65.2	64.7	59.7	65.4
1986[2]	69.4												

[1] Based on tonnage capability to produce raw steel for a full order book. [2] Preliminary. *Source: American Iron and Steel Institute* T 332

United States Production of Steel Ingots In Thousands of Short Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1978	10,301	9,643	11,083	11,528	12,320	11,861	11,388	11,550	11,467	12,105	11,654	11,812	137,031
1979	11,105	10,562	12,576	12,196	12,789	12,230	11,821	11,309	10,541	10,810	9,997	9,996	136,341
1980	10,701	10,332	11,439	10,658	9,226	7,501	6,796	7,018	7,767	9,442	10,057	10,180	111,835
1981	10,590	10,028	11,744	11,243	11,423	10,451	10,160	10,120	9,618	9,003	7,962	7,672	120,828
1982	7,737	7,178	8,049	7,006	6,678	6,050	5,719	5,538	5,299	5,262	4,546	4,456	74,577
1983	5,570	5,676	7,127	7,292	7,412	6,993	6,921	7,020	7,134	7,692	7,263	6,991	83,379
1984	7,970	8,142	9,056	8,997	9,174	7,945	7,460	6,915	6,378	6,703	6,422	6,013	92,528
1985[1]	6,984	6,851	8,269	7,872	7,830	7,292	7,010	7,130	6,924	7,351	7,051	6,728	87,292
1986[1]	7,665												

[1] Preliminary. *Source: American Iron and Steel Institute* T 333

Shipments of Steel Products[1] by Market Classifications in the United States In Thousands of Net Tons

Year	Appliances, Utensils & Cutlery	Automotive	Containers & Packaging	Construction	Contractors Products	Electrical Mach & Equipment	Export	Machinery, Industrial Equip. & Tools	Oil and Gas	Rail Transportation	Steel for Converting & Processing[2]	Steel Service Center & Distributors	All Other[3]	Total Shipments
1977	2,129	21,490	6,714	7,553	4,500	2,639	1,076	5,566	3,650	3,238	3,679	15,346	13,567	91,147
1978	2,094	21,253	6,595	9,612	3,480	2,811	1,224	5,992	4,140	3,549	4,612	17,333	15,240	97,935
1979	2,141	18,624	6,770	10,058	4,021	2,821	2,010	6,027	3,738	4,127	4,728	18,263	16,934	100,262
1980	1,726	12,156	5,549	12,149	3,362	2,441	2,597	4,566	5,368	3,178	3,881	16,174	10,706	83,853
1981	1,775	13,154	5,292	8,446	3,230	2,600	1,844	4,624	6,238	2,162	3,338	17,637	16,672	87,014
1982	1,337	9,288	4,470	6,283	2,287	2,003	832	2,584	2,745	1,020	3,222	13,067	12,429	61,567
1983	1,618	12,320	4,532	7,271	2,703	2,335	544	2,486	1,296	937	1,211	16,710	13,621	67,584
1984	1,635	12,554	4,337	8,614	2,563	2,363	428	2,737	1,727	1,036	4,686	17,234	13,098	73,012
1985	1,182	12,725	4,069	6,407	2,663	1,845	494	2,129	1,745	1,059	4,971	17,548	15,861	72,698

[1] All grades including carbon, alloy & stainless steel. [2] Net total after deducting shipments to reporting companies for conversion or resale. [3] Includes agricultural; bolts, nuts, rivets & screws; forgings (other than automotive); shipbuilding & marine equipment; aircraft; mining, quarrying & lumbering; other domestic & commercial equipment machinery; ordnance & other direct military; & shipments of non-reporting companies. *Source: American Iron and Steel Institute* T 334

Net Shipments of Steel Products in the United States

(All Grades, Including Carbon, Alloy & Stainless Steel) In Thousands of Net Tons

Year	Cold Finished Bars	Rails & Accessories	Wire & Wire Products[1]	Tin Mill Products	Plates	Sheets & Strip	Hot Rolled Bars	Pipe & Tubing	Shapes & Steel Piling	Reinforcing Bars	Hot Rolled Sheets	Cold Rolled Sheets	Semi-Finished	Alloy	Stainless
1981	1,620	1,458	1,694	4,927	7,397	36,924	6,628	10,286	4,903	4,371	13,451	14,396	5,598	10,595	1,163
1982	1,015	782	1,308	4,321	4,146	7,730[2]	4,757	5,026	3,563	4,049	9,052	11,132	3,693	6,726	894
1983	1,179	884	1,359	4,308	3,816	5,793[2]	5,129	3,242	3,622	4,275	11,619	13,781	3,861	6,154	1,137
1984[1]	1,158	1,239	1,222	4,062	4,342	8,357[2]	5,791	4,276	3,983	4,315	13,133	13,664	4,314	7,482	1,248
1985[1]	1,261	888	1,136	3,772	4,313	10,543[2]	5,526	4,096	4,843	4,444	12,952	13,574	4,350	7,422	1,251

[1] Preliminary. [2] Excludes Hot & Cold rolled sheets & strips. Shown elsewhere. *Source: American Iron & Steel Institute* T 335

U.S. Foreign Trade of Iron & Steel Products In Thousands of Short Tons

	U.S. Imports of Iron & Steel Pdts.						Exports of Iron & Steel Pdts. from U.S.					
				Grand Total						Grand Total		
Year	Steel Mill Pdts.	Other Steel Pdts.	Iron Pdts. & Ferro-alloys	Quantity	Mil. $	Iron & Steel Scrap	Steel Mill Pdts.	Other Steel Pdts.	Iron Pdts. & Ferro-alloys	Quantity	Mil. $	Iron & Steel Scrap
1981	19,898	822	97	20,818	11,286	556	2,904	444	209	3,557	3,649	6,415
1982	16,536	745	104	17,385	10,394	474	1,842	342	183	2,367	2,734	6,804
1983	17,034	804	125	17,964	7,238	641	1,199	247	144	1,589	1,783	7,520
1984[1]	26,169	1,146	109	27,488	11,495	577	980	261	174	1,413	1,627	9,498
1985[2]	24,280			25,500		611	931			1,400		9,937

[1] Preliminary. [2] Estimate. *Source: U.S. Bureau of Mines; American Metal Market* T 336

World Production of Pig Iron (Excludes Ferro-Alloys) In Millions of Short Tons

Year	Australia	Belgium	Brazil	Canada	China	Czech	France	W. Germany	India	Italy	Japan	Luxembourg	Poland	Un. Kingdom	USSR	United States	World Total
1981	7.5	10.7	11.9	10.7	37.7	10.4	19.0	35.1	10.4	13.5	88.2	3.2	10.3	10.4	118.1	73.8	553.6
1982	6.6	8.6	11.9	8.8	39.2	10.5	16.6	30.4	10.6	12.7	85.6	2.9	9.4	9.2	117.0	43.3	504.4
1983[1]	5.6	8.8	14.3	9.4	41.2	10.4	15.3	29.3	10.0	11.4	80.4	2.6	10.7	10.5	120.9	48.8	510.5
1984[1]	5.9	9.9	14.9	10.6	44.1	10.5	16.2	33.3	10.3	12.8	88.6	3.1	10.7	10.5	121.0	52.0	539.2
1985[2]					45						90				122	51	546

[1] Preliminary. [2] Estimated. *Source: Bureau of Mines* T 338

U.S. Pig Iron Production (Excluding Production of Ferro-Alloys) In Thousands of Short Tons

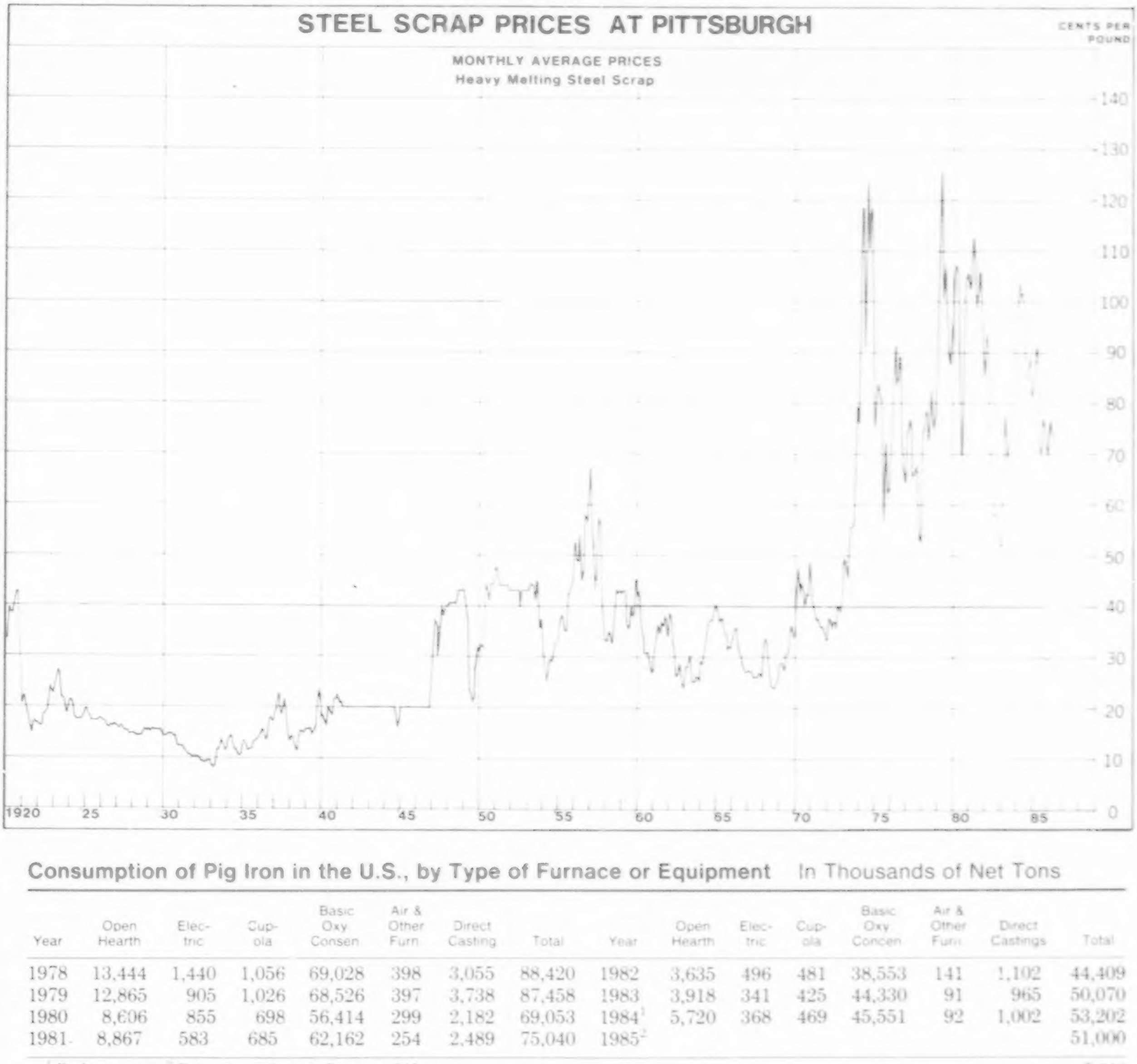
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1981	6,603	6,108	7,193	6,755	6,938	6,408	6,268	6,259	5,889	5,419	4,782	4,750	73,570
1982	4,489	4,169	4,622	3,967	3,904	3,595	3,516	3,277	3,160	3,077	2,648	2,712	43,136
1983	3,192	3,264	4,206	4,333	4,376	4,060	4,213	4,245	4,159	4,317	4,119	4,084	48,706
1984	4,310	4,497	5,083	5,077	5,166	4,565	4,329	4,057	3,473	3,739	3,817	3,694	51,904
1985[1]	3,969	3,897	4,684	4,512	4,553	4,301	4,114	4,110	3,883	4,060	3,999	3,930	50,012
1986[1]	4,297												

[1] Preliminary. *Source: American Iron and Steel Institute* T 341

Salient Statistics of Ferrous Scrap & Pig Iron in the U.S. In Millions of Short Tons

	Consumption: Ferrous Scrap & Pig Iron Charged To												Stocks—Dec. 31 Ferrous Scrap & Pig Iron at Consumers[1]		
	Mfg. of Pig Iron & Steel Ingots & Castings			Iron Foundries & Misc. Users				All Uses							
Year	Scrap	Pig Iron	Total	Scrap	Pig Iron	Total	Mfg. of Steel Castings (Scrap)	Ferr. Scrap	Pig Iron	Grand Total	Imports of Scrap[2]	Exports of Scrap[3]	Scrap	Pig Iron	Total Stocks
1981	68.3	73.0	143.6	14.2	2.0	16.2	2.6	85.1	75.0	162.1	.6	6.4	8.1	.9	9.0
1982	43.7	43.3	87.0	10.9	1.1	12.0	1.8	56.4	44.4	100.8	.5	6.8	6.4	.6	7.0
1983	49.0	49.0	98.0	11.4	1.0	12.4	1.5	61.8	50.1	111.9	.6	7.5	5.8	.3	6.1
1984[1]	51.8	52.0	103.8	12.3	1.2	13.5	1.6	65.7	53.2	118 9	.6	9.5	5.3	.3	5.6
1985[4]								70.5	51.5	122.0	.6	10.0	4.8	.3	5.1

[1] Preliminary. [2] Including tinplate scrap. [3] Excluding tinplate circles, strips, cobbles, etc. [4] Estimate. *Source: Bureau of Mines* T.342



STEEL SCRAP PRICES AT PITTSBURGH

MONTHLY AVERAGE PRICES
Heavy Melting Steel Scrap

Consumption of Pig Iron in the U.S., by Type of Furnace or Equipment In Thousands of Net Tons

Year	Open Hearth	Electric	Cupola	Basic Oxy Consen	Air & Other Furn	Direct Casting	Total	Year	Open Hearth	Electric	Cupola	Basic Oxy Concen	Air & Other Furn	Direct Castings	Total
1978	13,444	1,440	1,056	69,028	398	3,055	88,420	1982	3,635	496	481	38,553	141	1,102	44,409
1979	12,865	905	1,026	68,526	397	3,738	87,458	1983	3,918	341	425	44,330	91	965	50,070
1980	8,606	855	698	56,414	299	2,182	69,053	1984[1]	5,720	368	469	45,551	92	1,002	53,202
1981	8,867	583	685	62,162	254	2,489	75,040	1985[2]							51,000

[1] Preliminary. [2] Estimate. *Source: Bureau of Mines* T 340

Wholesale Price of No. 1 Heavy Melting Steel Scrap at Chicago In Dollars Per Gross Ton

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1977	69.00	69.00	69.65	70.79	64.62	58.36	57.00	57.00	55.00	49.00	43.95	59.26	60.21
1978	71.00	71.00	71.48	76.00	70.32	72.73	76.63	74.48	69.00	69.45	79.35	86.35	73.98
1979	93.00	103.00	121.73	110.10	91.91	106.62	98.62	89.96	86.00	86.22	91.00	91.28	96.69
1980	96.14	99.00	97.00	90.54	69.62	62.24	67.45	77.95	87.24	92.22	97.29	103.68	86.70
1981	95.00	91.11	105.14	107.55	97.50	88.00	88.45	97.76	92.52	82.64	75.00	74.41	91.76
1982	83.00	78.63	69.78	63.86	58.30	51.77	49.00	51.73	48.95	47.86	45.00	45.48	57.78
1983	56.14	67.00	77.70	70.33	65.00	70.52	70.08	74.00	78.00	78.00	78.30	84.00	72.42
1984	88.29	89.00	87.09	85.14	85.00	84.71	79.00	78.00	81.00	81.09	83.00	76.00	83.12
1985	78.86	82.16	84.76	79.59	68.00	62.00	64.24	73.00	72.00	71.87	69.00	69.19	72.89
1986	74.23	76.89	74.05										

Source: American Metal Market T 339

World Production of Iron Ore[3], by Specified Countries (Gross Weight) In Millions of Long Tons

Year	Australia	South Africa	Brazil	Canada	Chile	China	France	Mauritania	India	Liberia	Spain	Sweden	Peru	United States	USSR[1]	Venezuela	World Total[1]
1976	91.8	15.4	92.6	54.7	9.9	59.1	44.5	9.5	43.2	20.2	8.1	29.4	7.0	80.0	237.3	18.4	885.1
1977	94.4	26.1	80.7	56.7	7.5	49.2	36.1	9.6	41.9	17.4	8.2	24.4	6.2	55.8	238.0	13.5	827.8
1978	81.8	23.1	83.6	41.1	6.7	68.9	32.9	6.8	38.2	17.7	8.4	21.1	4.8	81.6	242.5	13.3	833.3
1979	90.3	31.1	102.4	58.9	7.0	65.0	31.1	9.2	39.2	18.1	8.7	25.8	5.4	85.7	237.9	15.0	888.8
1980	94.0	25.9	112.9	48.0	8.5	67.0	28.5	8.8	41.3	17.9	9.1	26.8	5.6	69.6	240.8	15.8	877.2
1981	83.3	27.9	97.9	51.2	7.6	65.0	21.3	8.6	40.7	19.4	8.4	22.9	6.0	73.2	238.6	15.3	843.2
1982	86.3	24.2	92.4	35.0	5.7	68.0	19.1	8.1	40.3	17.9	8.1	15.9	5.7	35.4	240.6	11.0	767.5
1983[2]	70.5	16.3	87.8	29.8	5.1	70.0	15.7	7.3	38.2	14.7	7.3	13.0	4.3	37.6	241.3	9.6	723.9
1984[2]	88.6	24.1	88.6	37.2	5.5	74.0	14.8	9.4	40.4	14.9	7.1	17.8	4.0	51.3	243.1	12.5	789.4
1985[1]	90	23	95	38		75	14		42	15		23		48	242	14	799

[1] Estimate. [2] Preliminary. [3] Iron ore, iron ore concentrates and iron ore agglomerates. *Source: Bureau of Mines* T 344

Salient Statistics of Iron Ore[2] in the U.S. In Millions of Long Tons

Year	Net Import Reliance % of Apparent Consumption	Production[3]					Shipments[4]	Value Mill. $ (at Mine)	Avg. Value $ at Mine Per Ton	Stocks—Dec. 31			Imports	Exports	Consumption	Manganiferous Shipments[5]
		Total[3]	Lake Superior	Northeast	Southeast	West				Mines	Consuming Plants	Lake Erie Docks				
1976	31	80.0	67.4	2.0	.1	9.7	77.1	1,871.1	24.28	14.0	56.2	4.8	44.4	2.9	125.4	.2
1977	48	55.8	44.1	1.2	.1	9.3	54.1	1,422.7	26.32	14.8	42.3	3.0	37.9	2.1	116.0	.2
1978	29	81.6	72.7	8.9			83.2	2,401.4	28.86	12.4	39.3	3.6	33.6	4.2	124.8	.3
1979	25	85.7	77.2	8.6			86.2	2,814.4	32.64	11.3	39.0	5.4	33.8	5.1	125.4	.2
1980	25	69.6	62.3	7.3			69.6	2,544.1	36.56	11.7	35.7	6.1	25.1	5.7	98.9	.2
1981	22	73.2	67.5	5.7			72.2	2,915.2	40.39	12.7	36.2	6.6	28.3	5.5	104.4	.2
1982	34	35.4	31.8	3.6			35.8	1,491.8	41.72	12.1	29.9	5.8	14.5	3.2	63.9	—
1983	37	37.6	35.6	2.0			44.6	1,945.0	43.61	4.1[7]	25.5	3.2	13.2	3.8	70.6	—
1984[1]	19	51.3	49.7	1.6			50.9	2,247.7	44.17	5.2	24.0	2.9	17.2	5.0	72.5	.1
1985[6]	22	48.5	47.4	1.1			48.1			6.0	21.3	2.4	15.8	5.0	70.0	

[1] Preliminary. [2] Usable; less than 5% Mn. [3] Includes by-product ore. [4] Excludes by-product ore. [5] Iron ore, 5 to 35% Mn. [6] Estimate. [7] New classification. *Source: Bureau of Mines* T 345

U.S. Imports (for Consumption) of Iron Ore from Principal Countries In Thous. of Long Tons

Year	India	Venezuela	Australia	Brazil	Canada	Chile	South Africa	USSR	Liberia	Sweden	Peru	Norway	Total
1976	130	9,001	617	5,388	24,962	608	162	44	2,153	441	716	151	44,390
1977	—	6,179	305	2,243	25,283	566	249	86	1,792	153	1,020	—	37,905
1978	—	6,083	264	3,979	19,236	390	94	—	2,170	256	818	302	33,616
1979	54	4,563	183	3,095	22,602	245	106	—	2,190	171	456	44	33,776
1980	—	3,602	—	1,995	17,311	322	6	—	1,590	33	193	—	25,058
1981	—	5,071	—	1,738	18,845	342	—	—	2,160	87	77	—	28,328
1982	—	1,643	—	972	9,281	47	52	—	2,399	71	35	—	14,501
1983	—	1,333	—	1,276	8,832	—	—	—	1,732	68	—	—	13,246
1984[1]	—	1,588	—	2,542	11,161	—	—	—	1,745	84	7	—	17,160
1985[2]		2,068		2,540	8,557	164			2,206	66	121		15,772

[1] Preliminary. [2] Estimate. *Source: Department of Commerce* T 346

Total[1] Iron Ore Stocks at End of Month in the U.S. In Millions of Long Tons

Year	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1976	66.9	65.4	63.1	61.4	62.6	64.1	65.3	66.6	69.3	71.4	73.2	75.0
1977	73.5	72.2	70.1	68.5	67.7	68.5	69.7	67.2	65.9	63.5	60.7	59.4
1978	56.3	54.1	53.1	50.4	49.9	51.9	51.6	53.8	54.7	55.5	56.4	55.3
1979	53.0	50.7	47.8	46.7	46.6	48.0	51.0	51.5	52.0	54.2	55.2	55.8
1980	53.7	51.8	49.0	49.6	50.7	53.5	56.8	57.5	58.0	57.7	56.6	56.1
1981	54.5	53.2	50.8	49.8	51.4	53.7	56.4	58.8	59.6	60.4	60.1	60.2
1982	60.4	60.9	57.3	57.7	57.6	58.5	59.1	57.8	55.8	54.5	52.6	52.6
1983[2]	45.5	42.6	39.6	37.5	37.2	37.4	37.0	35.3	35.7	34.7	33.8	32.6
1984[2]	30.1	28.4	26.3	26.2	27.4	29.2	30.9	31.6	32.2	33.3	33.7	32.1
1985[2]	30.4	28.9	25.1	28.0	29.0	29.8	29.6	30.7	31.2	30.6	29.9	

[1] All stocks at mines, furnace yards and at U.S. docks. [2] Preliminary. *Source: American Iron Ore Association* T 347

Lard

World pork production during the 1985/86 (Oct./Sept.) season was estimated by *Oil World* to increase by about 2.5 percent to a new record high. China was expected to register the largest increase. A moderate gain was anticipated for the EEC, while U.S. production was expected to decline. World output of lard was projected to increase by about 1.8 percent as the trend to lower lard yields continued in many countries. Disappearance of lard, aside from China, was estimated to increase only marginally in the 1985/86 season. Disappearance in China was expected to increase in line with production gains. A 5% increase in world stocks of lard was projected for the fall of 1986, with gains expected in the EEC and the USSR. Unattractive prices for lard compared to many vegetable oils were a negative factor for lard use early in the 1985/86 season as well as in the latter part of the previous season. World exports of lard in 1985/86 were expected to show little change from the previous season.

U.S. production of lard in the 1985/86 season was projected by the USDA at 920 million pounds, down 2 percent from 940 million in 1984/85. U.S. lard consumption in selected edible and inedible products totaled about 378.8 million pounds in the October 1984/September 1985 season, up 3.3 percent from the previous season. Lard use in edible products increased 4.8 percent, to 328.6 million pounds. Lard consumption in baking or frying fats accounts for the bulk of edible use. Consumption of lard in inedible products declined 5.5 percent in the 1984/85 season to 50.2 million pounds. U.S. stocks at the end of the 1984/85 season on September 30, 1985 totaled about 41.4 million pounds, up 38.3 percent from year-earlier stocks.

Supply and Distribution of Lard in the United States In Millions of Pounds

	Supply							Distribution							
	Production									Domestic Disappearance					
	Commercial										Direct Use as Lard				
Year	Federally Inspected	Other	Total	Farm	Total Production	Stocks Jan. 1[2]	Total Supply	Exports	Total Disappearance	Domestic Disappearance	Shortening	Margarine	Civilian	Military	Per Capita Lbs.
1981	1,159		1,159	—	1,159	49	1,208	139	1,170	1,031	315	85	573	1	2.5
1982	1,011	—	1,011	—	1,011	37	1,048	103	1,111	1,008	251	28	586	1	2.5
1983	973	—	973	—	973	37	1,010	87	976	889	277	30	489	1	1.8
1984[1]	939	—	939	—	939	34	973	89	935	846	264	40	491	1	2.1
1985[3]			927			39					274	62			

[1] Preliminary. [2] Factory & warehouse. [3] Estimate. *Source: Economic Research Service, U.S.D.A.* T.348

Lard Exports[2] of the United States by Selected Country of Destination In Thousands of Metric Tons

Year	Asia	Belgium & Lux.	Canada	Belize	Bolivia	Neth. Antilles	Colombia	W. Germany	Haiti	Mexico	Ecuador	Netherlands	Poland	United Kingdom	Yugoslavia	Grand Total
1981	.1	—	9.0	1.8	2.1	.4	1.0	—	1.1	32.6	—	—	17.0	.6	—	67.9
1982	1.1	1.0	11.4	1.4	0	.6	.1	—	2.1	24.6	—	—	0	.6	—	46.7
1983	5.4	1.0	7.3	1.5	—	.4	.1	—	1.5	19.7	—	—	—	.4	—	40.2
1984[1]	.1	0	9.1	1.4	.1	.3	.1	—	.1	28.6	—	—	0	—	—	40.4

[1] Preliminary. [2] Excludes exports for civilian relief & shipments by CARE. *Source: Foreign Agricultural Service, U.S.D.A.* T.352

United States Commercial[1] Production of Lard In Millions of Pounds

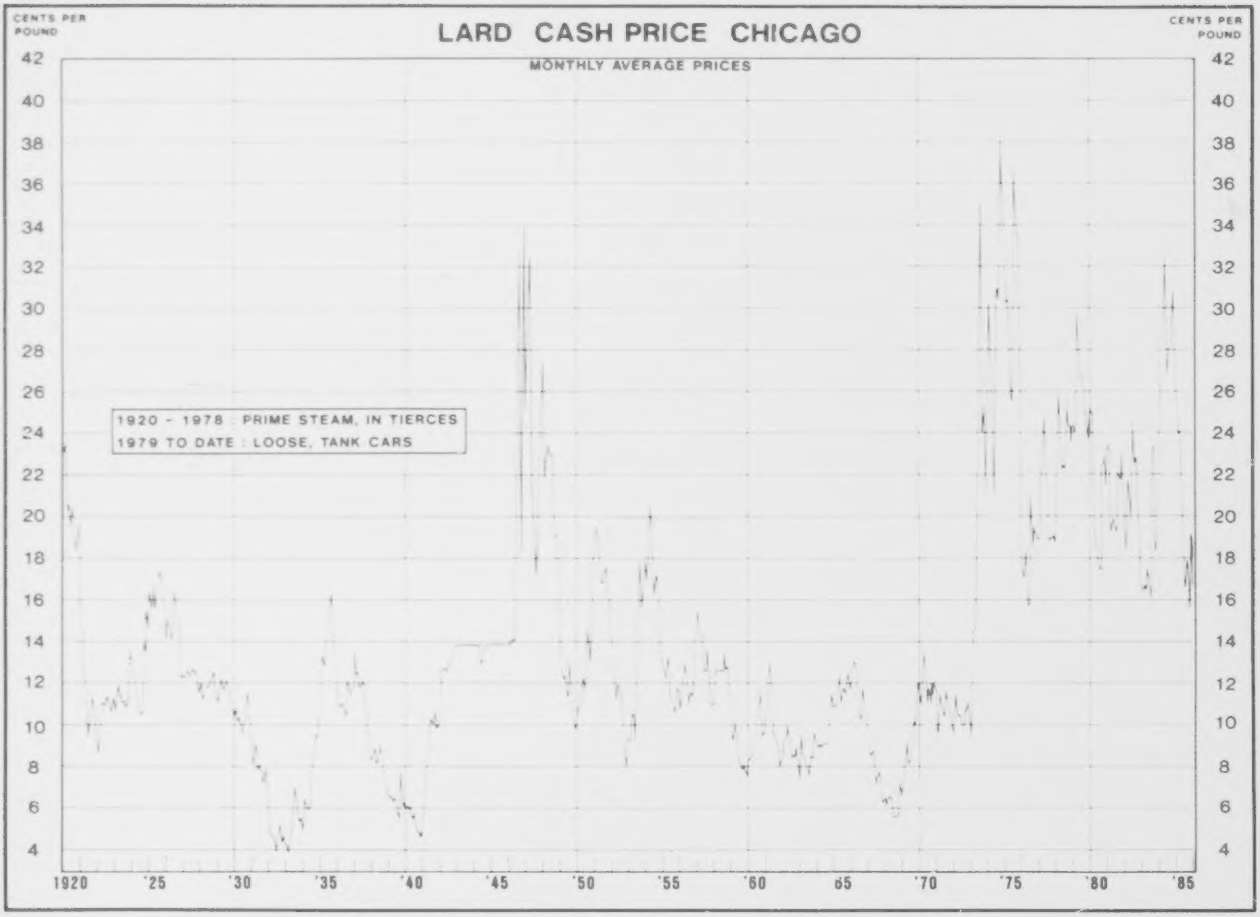
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1981	100.0	87.0	99.0	104.0	95.0	91.0	89.0	86.0	96.0	104.0	99.0	104.0	1,155
1982	88.0	77.0	94.0	—	—	257.0	—	—	234.0	—	—	261.0	1,011
1983	73.0	66.0	84.0	81.0	79.0	79.0	73.0	81.0	84.0	90.0	94.0	88.0	973
1984	79.0	74.0	86.0	79.0	81.0	72.0	66.0	76.0	74.0	90.0	84.0	78.0	939
1985[2]	81.0	70.0	78.0	81.0	83.0	70.0	72.0	77.0	76.0	85.0	78.0	76.0	927
1986[2]	80.0	68.0	76.0										

[1] Includes "Rendered Pork Fat." [2] Preliminary. *Source: Department of Agriculture* T.354

Consumption (edible & inedible) of Lard in the United States In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1981	45.5	39.1	36.8	38.4	34.2	36.6	33.2	35.3	38.8	31.1	37.8	41.5	448
1982	35.3	25.4	28.6	33.4	31.2	28.1	24.2	22.2	22.4	21.6	23.3	26.3	322
1983	25.4	27.2	29.3	32.2	41.9	37.1	30.1	34.4	31.7	33.8	38.9	38.3	400
1984	33.9	27.6	30.5	29.3	33.4	26.0	25.8	26.2	23.1	31.1	37.5	30.5	355
1985[1]	34.1	29.6	30.0	30.1	31.2	29.3	27.9	30.8	36.4	44.6	37.5	33.4	395
1986[1]	33.3	31.4	33.9										

[1] Preliminary. *Source: Economic Research Service, U.S.D.A.* T.349



Average Wholesale Price of Lard—Loose, Tank Cars, Chicago In Cents Per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1979	24.5	24.0	25.1	29.8	26.8	—	—	—	26.6	25.1	23.8	25.1	25.6
1980	22.0	21.6	19.3	19.0	18.0	17.5	17.5	22.5	23.0	21.6	23.3	23.3	20.7
1981	20.0	19.0	19.6	19.9	19.4	19.6	22.0	21.8	22.8	21.5	21.0	18.4	20.3
1982	20.0	21.5	20.0	22.0	23.0	24.6	22.6	22.8	21.3	21.0	17.3	16.5	21.1
1983	16.4	16.7	16.4	17.4	17.1	16.4	16.1	23.2	23.4	18.3	18.7	18.8	18.2
1984	25.9	26.3	28.9	29.1	32.8	29.5	26.8	28.1	28.2	30.5	30.8	26.4	28.6
1985	24.6	24.0	24.1	22.7	20.0	18.1	16.9	17.8	15.8	15.4	19.2	16.5	19.6
1986	16.0	15.5	12.3	11.3									

Source: Economic Research Service, U.S.D.A. T.350

United States Cold Storage Holdings of all Lard[1], on First of Month In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1979	38.1	40.5	39.6	35.8	42.8	47.9	46.0	51.4	46.4	43.9	44.7	52.0
1980	49.9	54.4	61.3	62.5	57.9	51.7	59.1	57.1	55.0	43.5	44.6	48.7
1981	49.4	50.4	46.9	42.2	40.5	40.1	40.7	42.6	39.5	35.6	36.7	39.1
1982	37.0	35.3	32.5	34.0	32.7	31.8	31.4	25.5	32.2	24.2	29.5	39.0
1983	37.5	38.3	31.5	36.1	39.1	43.0	41.8	41.0	35.6	40.4	41.4	45.8
1984	34.2	34.1	28.5	29.1	31.2	38.1	34.4	32.9	33.1	29.9	37.8	33.1
1985[2]	38.7	33.7	36.6	37.1	42.0	43.1	47.3	42.2	41.0	41.3	39.3	35.9
1986[2]	35.4	37.6	36.4	42.7								

[1] Stocks in factories & warehouses (except that in hands of retailers). [2] Preliminary. *Source: Bureau of the Census* T.351

Lead

The U.S. domestic lead industry took some hard blows in 1985. Although total production rose from about 1.08 million short tons in 1984 to 1.11 million in 1985, a gain of 2.8 percent, consumption fell from 1.33 million short tons to 1.24 million, a decline of nearly 7 percent. As a partial result of the shortfall of demand, producers' inventories at 1985's end were almost 70 percent larger than a year earlier. Also as a result of falling demand relative to supply, producers' prices dropped from an average of 25.5 cents per pound during 1984 to an average of 20 cents in 1985, a skid of nearly 22 percent.

The fall in consumption during 1985 was attributable, in the main, to weakness in two of the lead industry's major markets, storage batteries and gasoline additives. Storage-battery makers, who account for more than 70 percent of total demand for lead, cut back output in early 1985 in order to work off the carry-over inventory from 1984. Then, during the latter half of the year they took full advantage of falling prices for lead and abundant supply of the product to limit purchases to current production requirements. In the case of leaded gasoline, the decrement to consumption is explainable almost entirely in terms of environmental restrictions.

Comparatively little lead moves to and from the United States in the form of imports and exports. Exports of refined lead amounted in 1985 to only 12,000 short tons, or about 1 percent of total domestic output. Imports loomed somewhat larger, accounting for about 15 percent of total U.S. consumption of lead; the lion's share (83%) of imports was refined lead, the balance in ores and concentrates.

The outlook for 1986 is not encouraging for the lead industry. Principally because of the steady downward trend in usage of lead in gasoline, a decline is expected to be only slightly offset by rising demand from storage-battery producers, total consumption is projected to fall 3 percent. In addition, a small decrease in lead's output, compared with 1985, is projected for 1986; the production drop could become sizeable if domestic automobile production falls substantially from what has been forecast. If these events all come to pass, average prices paid to lead's producers are most unlikely to rise from 1985's level and they may well be significantly lower.

Over the longer term, the lead industry is likely to stagnate, that is, neither grow nor contract. The average yearly increase in consumption, as currently foreseen, will be 1 percent through 1990. Practically all of the growth in demand, if it materializes, is expected to come from storage-battery manufacturers, demand that is largely derived from demand for automobiles. Usage of lead in gasoline is expected to fall to zero before the end of the decade, the victim of a statutory ban. Barring some dramatic change in these variables, then, the only other source of rising demand would be new commercial applications for lead, for instance, as a stabilizing agent in road asphalt and asphalt shingles, or in major power supply load-leveling applications.

World Smelter (Primary & Secondary) Production of Lead In Thousands of Metric Tons

Year	Australia[3]	Belgium[4]	Bulgaria	Canada[3]	China[2]	France	W. Germany	Japan	Mexico[3]	Peru[3]	Spain	United States	Un. Kingdom[3]	USSR	Yugoslavia[3]	World Total
1976	342.6	91.7	112.0	231.0	140.0	191.5	278.3	305.7	234.7	74.1	101.7	1,251		600.0	140.3	4,990
1977	337.9	73.6	120.0	240.6	150.0	144.4	373.5	305.2	216.2	79.2	118.6	1,306		610.0	145.0	5,140
1978	356.0	76.5	120.0	245.9	160.0	151.4	305.0	293.9	215.4	74.3	122.2	1,337	253.4	620.0	140.4	5,133
1979	427.1	60.7	119.0	252.4	170.0	159.9	316.6	294.3	223.0	90.7	127.0	1,380	276.5	690.0	133.6	5,628
1980	393.9	83.9	119.0	234.6	175.0	162.5	301.4	315.6	189.0	84.9	120.7	1,224	241.4	700.0	124.7	5,397
1981	401.8	88.2	119.0	238.2	175.0	167.5	362.3	332.3	194.7	84.2	117.2	1,139	224.5	715.0	120.5	5,375
1982	428.7	80.9	118.0	238.9	175.0	163.4	350.4	311.9	179.4	82.0	131.6	1,088	213.3	730.0	109.0	5,295
1983[1]	413.5	84.5	116.0	242.0	195.0	152.5	352.5	333.3	201.8	72.7	144.7	1,018	226.0	745.0	110.0	5,267
1984[2]	401.7	87.0	116.0	252.0	195.0	155.4	357.2	372.9	205.0	75.3	148.0	979.4	231.7	755.0	100.0	5,319
1985[2]	420			260					210	80		1,000			100	5,450

[1] Preliminary. [2] Estimated. [3] Refined & bullion. [4] Includes scrap. *Source: Bureau of Mines* T.355

Consumption of Lead in the United States by Products In Thousands of Metric Tons

Year	Ammunition	Bearing Metals	Building[2]	Cable Covering	Calking Lead	Casting Metals	Glass & Ceramic Pdt's.	Paints	Sheet Lead	Solder	—Storage Battery— Grids, Post, etc.	—Storage Battery— Oxides	Gasoline Additives	Type-Metal	Brass and Bronze	Total Consumption
1978	55.8	9.5	10.5	13.9	9.9	3.6	—— 91.6 ——		12.6	68.4	412.6	466.7	178.3	10.8	16.5	1,432.7
1979	53.2	9.6	7.2	16.4	8.0	22.7	48.8	26.7	20.4	54.3	375.6	438.8	186.9	10.0	18.7	1,358.3
1980	48.7	7.8	8.6	13.4	5.7	19.0	45.4	20.7	19.8	41.4	302.2	343.1	127.9	9.0	14.0	1,070.3
1981	49.5	6.9	8.8	12.1	5.5	18.6	44.3	16.3	19.4	29.7	342.2	428.0	111.4	7.8	13.3	1,167.1
1982	44.2	6.1	8.6	15.2	4.1	25.1	34.5	13.4	15.2	28.5	312.6	391.7	119.2	2.8	11.4	1,075.4
1983	43.7	5.8	13.1	10.5	3.6	16.2	39.7	15.4	14.2	28.5	382.3	424.6	89.1	2.5	11.0	1,148.5
1984[1]	47.8	4.7	13.7	12.3	4.0	15.8	46.1	17.4	14.7	24.4	426.3	439.2	78.9	2.2	7.0	1,207.0
1985[3]	49.0	3.5	13.0	14.9	4.0	15.0	46.0	17.0	14.0	20.0	420	440.0	75.0	2.0		1,130.2

[1] Preliminary. [2] Chiefly pipes, traps & bends. [3] Estimate. *Source: Bureau of Mines* T.358

Salient Statistics of Lead in the United States In Thousands of Metric Tons

Year	Net Import Reliance as a % of Apparent Consumption	Production of Refined Lead From: Domestic Ores[2]	Foreign Ores[2]	Total Primary	Secondary Sources	Total	Total Value of Refined Mil. $	Secondary Lead Recovered: As Refined Metal	In Antimonial Lead	In Other Alloys	Total	Total Value of Secondary Mil. $	Dec. 31 Stocks: Producers Stocks[3]	Consumers Stocks	Avg. Price (¢ per Lb.): New York	London
1976	15	515.8	76.5	592.3	—	592.3	301.6	282.1	310.2	66.8	659.1	335.7	110.4	117.6	23.10	20.46
1977	13	486.7	62.0	548.7	.1	548.8	371.4	303.1	383.4	71.1	757.6	512.8	91.1	121.4	30.70	28.00
1978	12	501.6	63.5	565.2	1.2	566.4	419.3	282.6	409.9	76.5	769.2	570.7	98.7	125.2	33.65	29.86
1979	5	530.0	45.6	575.6	2.9	578.5	668.0	352.2	378.8	70.3	801.4	930.0	89.3	153.2	52.64	54.52
1980	[5]	508.2	39.4	547.6	2.1	549.7	512.6	315.2	306.7	53.7	675.6	632.4	126.0	126.2	42.46	41.21
1981	1	440.2	55.1	495.3	1.7	497.1	398.9	282.2	304.4	54.6	641.1	516.3	140.2	123.2	36.53	33.30
1982	3	459.9	52.3	512.2	.7	512.8	288.4	240.5	284.4	46.4	571.3	321.7	125.5	97.2	25.54	24.66
1983	14	459.3	55.2	514.6	.6	515.2	245.9	189.6	271.6	42.3	503.5	240.7	106.7	100.8	21.68	19.27
1984[1]	16	330.2	65.4	395.6	1.0	396.6	222.8	243.2	297.4	42.1	582.8	328.3	135.1	97.1	25.55	20.12
1985[4]	0			490.8		491					543.9			61.9	19.07	17.84

[1] Preliminary [2] And base bullion [3] At primary smelters & refineries [4] Estimates [5] Net exporter *Source: Bureau of Mines* T 357

U.S. Mine Production of Recoverable Lead In Thousands of Metric Tons

Year	Arizona	California	Colorado	Idaho	Illinois	New York	Missouri	Montana	Nevada	New Mexico	Oklahoma	Utah	Virginia	Washington	Wisconsin	Total U.S.[2]
1976	.3	.1	24.3	48.7	N.A.	2.9	454.5	.1	.5	N.A.	N.A.	14.8	1.8	N.A.	N.A.	553.0
1977	.3	—	20.9	42.9	N.A.	2.5	453.8	.1	.7	N.A.	N.A.	9.7	2.0	1.1	N.A.	537.5
1978	.4	N.A.	15.2	44.8	N.A.	1.0	461.8	.1	.7	N.A.	—	2.5	1.8	N.A.	N.A.	529.7
1979	.4	N.A.	7.6	42.6	N.A.	.5	472.1	.3	—	N.A.	—	N.A.	1.6	—	N.A.	525.6
1980	.2	N.A.	10.3	38.6	N.A.	.9	497.2	.3	—	—	—	—	1.6	N.A.	—	550.4
1981	1.0	N.A.	11.4	38.4	N.A.	1.0	389.7	.2	N.A.	N.A.	—	1.7	1.6	—	—	445.5
1982	.4	N.A.	N.A.	N.A.	N.A.	1.1	474.5	.7	N.A.	N.A.	—	N.A.	—	N.A.	—	512.5
1983	.2	N.A.	N.A.	25.9	N.A.	1.3	409.3	1.2	—	.3	—	—	—	—	—	449.2
1984	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	278.3	N.A.	—	N.A.	—	—	—	—	—	321.9
1985[1]							368.3									409.4

[1] Preliminary [2] Includes Alaska *Source: Bureau of Mines* T 356

U.S. Foreign Trade of Lead In Thousands of Metric Tons

Year	Exports: Ore & Concentrate	Unwrought Lead[3]	Wrought Lead[4]	Scrap	Total	Imports for Consumption: Ores, Flue Dust or Fume & Mattes	Base Bullion	Pigs & Bars	Reclaimed Scrap, Etc	Value Million $	General Imports From: Ore, Flue Dust & Matte: Australia	Peru	Canada	Pigs & Bars: Australia	Mexico	Peru	Canada
1977		4.3	4.7	77.5	86.5	88.8	7.3	230.1	3.5	196.9	16.6	6.6	16.0	19.9	71.8	30.4	75.4
1978		3.2	5.1	98.6	106.9	61.9	4.3	225.4	3.3	203.0	6.5	6.3	19.6	16.3	80.2	25.7	70.4
1979		7.4	3.3	119.7	130.4	44.4	1.7	182.6	4.0	248.3	1.9	12.4	12.8	17.3	73.6	17.9	
1980	27.6	156.5	8.0	119.7	284.2	29.6	.3	81.3	2.9	116.5	3.0	18.0	8.5	11.3	28.6	3.3	34.9
1981	33.0	16.8	6.5	59.4	82.7	27.2	.4	100.1	2.7	110.5	2.2	14.1	23.5	10.9	33.7	2.9	50.8
1982	29.1	51.0	4.6	51.8	136.5	18.9	—	94.9	4.8	69.9	7.7	14.5	4.8	7.3	23.5	8.3	49.8
1983	20.1	17.7	2.8	50.9	95.4	19.8	.1	134.4	4.2	89.9	10.0	22.7	6.1	10.9	34.9	10.1	72.7
1984[1]	11.9	5.0	2.5	45.1	73.5	29.9	—	161.5	5.0	104.2	17.0	22.7	14.1	10.9	39.5	9.2	94.9
1985[2]	10.0	—27.3—		59.9		2.6	.8	131.4	3.2		12.3	15.2	5.2	3.6	33.8	5.2	90.1

[1] Preliminary. [2] Estimates. [3] And lead alloys. [4] Blocks, Pigs, etc. *Source: Bureau of Mines* T.359

LEAD

Average Price of Pig Lead, U.S. Primary Producers (Common Corroding)[1] In Cents Per Pound

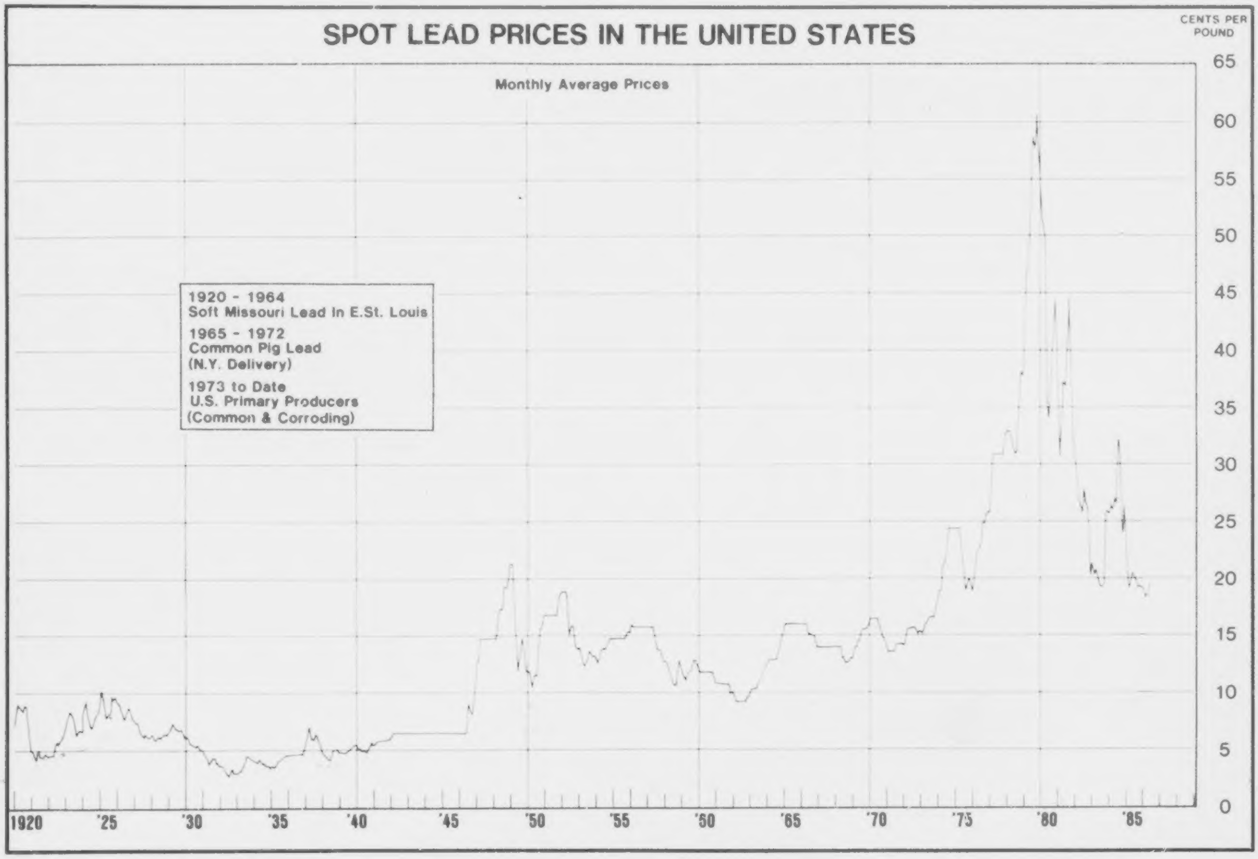
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct	Nov	Dec	Average
1980	51.06	50.00	49.52	45.34	36.00	34.19	35.95	40.95	42.43	45.00	44.06	40.43	42.91
1981	34.13	30.63	35.32	37.68	37.10	38.23	41.25	44.64	42.52	37.59	34.34	31.75	37.10
1982	29.90	28.89	27.98	26.57	26.50	25.89	27.88	27.45	26.64	23.12	21.48	20.12	26.03
1983	21.60	20.87	20.43	21.00	20.10	19.34	19.30	19.38	22.24	25.62	26.00	25.69	21.80
1984	26.38	26.00	26.45	27.00	26.55	29.00	32.14	30.13	25.68	24.04	26.42	23.11	26.91
1985	20.45	19.76	19.24	20.48			19.88	19.32	19.44		19.06	19.05	19.68
1986	18.70	18.41											

[1] N.Y. Delivery. *Source: American Metal Market* T.360

Refiners Production[1] of Lead in the United States In Thousands of Short Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct	Nov	Dec	Total
1980	56.9	49.3	54.1	47.5	47.0	47.1	52.0	48.2	50.2	52.2	48.4	53.5	606.4
1981	58.0	53.6	58.2	52.7	35.0	24.4	33.0	45.1	43.7	46.1	39.4	44.0	533.2
1982	50.3	45.2	44.0	36.1	54.3	53.0	44.2	46.4	49.2	50.6	50.8	48.6	572.6
1983	57.0	50.9	52.8	48.9	47.2	42.0	39.5	45.3	41.2	50.0	50.9	46.4	572.3
1984	51.5	51.4	43.0	40.0	39.2	26.2	28.4	29.1	25.3	40.8	28.0	26.5	429.2
1985	43.1	50.3	56.3	52.7	53.4	50.9	32.5	46.6	44.9	39.3	30.1	44.5	544.5
1986	47.4	41.6											

[1] Represents refined lead produced from domestic ores by primary smelters plus small amount of secondary material passing through these smelters. Includes GSA metal purchased for remelt. *Source: American Bureau of Metal Statistics, Inc* T.362



SPOT LEAD PRICES IN THE UNITED STATES

U.S. Mine Production of Recoverable Lead In Thousands of Metric Tons[2]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1976	50.4	52.0	57.8	50.6	51.0	50.6	48.1	51.0	49.2	49.6	49.0	50.4	609.5
1977	45.0	49.2	56.9	53.2	48.3	50.9	41.9	52.8	46.4	49.2	48.6	50.3	592.5
1978	49.8	45.0	57.1	49.4	54.3	40.1	35.5	47.6	49.5	55.5	50.0	49.1	528.8
1979	48.4	44.7	43.1	37.3	42.0	42.6	41.5	49.5	35.2	50.5	46.8	44.1	525.6
1980	51.4	50.3	49.8	48.9	49.9	46.1	43.4	41.5	39.4	48.6	39.7	41.3	550.4
1981[2]	42.6	40.9	43.4	26.7	27.8	17.4	31.8	38.2	48.0	47.5	39.8	41.3	445.5
1982	40.3	43.2	48.4	44.1	41.8	42.4	36.8	42.7	41.4	44.7	41.8	45.1	512.5
1983	44.9	39.6	37.3	36.7	35.9	28.4	35.3	43.2	37.4	37.1	38.3	34.9	449.2
1984[1]	41.8	42.6	46.2	20.9	24.0	12.2	24.8	23.4	18.6	22.4	19.5	25.4	321.9
1985[1]	31.4	32.9	37.2	38.8	36.7	32.1	34.1	34.4	30.4	35.4			

[1] Preliminary. [2] Data prior to 1981 are in thousands of short tons. *Source: Bureau of Mines* T.359A

Total Stocks of Lead[1] in the United States at Refiners, at End of Month In Thousands of Short Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1980	67.8	75.0	71.6	83.8	90.8	82.7	66.3	53.8	35.2	29.2	46.5	60.9
1981	86.6	92.3	88.9	87.8	71.2	61.6	59.9	52.6	38.5	49.1	57.5	62.8
1982	65.4	67.2	65.9	60.1	65.1	73.2	70.8	64.9	71.4	72.9	78.0	79.0
1983	83.3	91.2	84.9	89.0	100.6	98.6	95.3	82.1	61.3	56.6	51.6	58.9
1984	63.3	70.3	76.1	81.5	84.2	83.5	84.9	78.4	64.8	66.2	53.0	49.7
1985	48.2	59.6	79.3	90.4	107.2	128.9	125.0	118.2	114.1	102.4	90.6	93.1
1986	96.1	104.1										

[1] Stocks at own plant & elsewhere. *Source: American Bureau of Metal Statistics, Inc.* T.364

Total[1] Lead Consumption in the United States In Thousands of Metric[2] Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	114.6	111.0	124.3	109.5	116.7	108.5	91.3	106.0	109.3	112.1	106.3	94.0	1,358
1980	97.3	84.9	90.0	83.8	84.1	77.2	68.2	79.5	95.6	103.0	92.5	92.0	1,070
1981	98.9	90.7	95.9	91.2	89.1	91.0	81.1	93.1	99.9	110.4	94.4	107.6	1,167
1982[2]	98.7	87.9	97.2	94.5	84.7	88.4	72.4	96.7	88.3	98.3	81.5	86.8	1,075
1983	91.5	74.0	83.1	85.9	83.8	96.3	79.3	102.6	115.7	112.3	102.7	121.4	1,149
1984	112.7	94.1	96.8	89.5	87.3	96.4	82.7	97.3	96.7	103.2	96.9	95.1	1,207
1985	87.3	101.5	100.7	90.1	86.0	77.0	67.8	101.8	100.4	98.9			

[1] Represents total consumption of primary & secondary lead as metal, in chemicals, or in alloys. [2] Data prior to 1982 are in thousands of short tons. *Source: Bureau of Mines* T.365

U.S. Lead Recovered from Scrap (Lead Content) In Thousands of Metric Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	54.6	60.5	65.1	64.1	62.0	65.2	51.3	58.1	58.2	65.0	60.7	54.3	801.4
1980	59.2	55.4	59.6	59.1	51.2	57.1	45.9	52.2	56.0	50.2	58.1	54.9	675.6
1981	46.5	43.9	43.8	42.5	44.1	46.7	46.4	49.1	52.5	50.9	52.2	48.7	641.1
1982	45.5	48.2	48.0	47.6	46.1	44.8	34.4	44.2	41.9	44.6	41.9	41.5	571.3
1983	41.3	37.4	41.0	41.3	42.5	37.3	37.2	39.6	43.4	48.9	48.4	45.7	503.5
1984[1]	44.4	48.6	47.6	48.5	46.6	46.7	44.5	50.0	49.0	51.7	48.1	41.3	582.8
1985[1]	44.6	31.4	46.4	43.9	44.7	34.9	41.1	45.5	50.8	53.9			

[1] Preliminary. *Source: Bureau of Mines* T.366

Domestic Shipments[1] of Lead in the United States by Refiners In Thousands of Short Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	40.5	37.6	38.9	28.8	30.1	35.3	36.6	48.0	60.1	55.6	31.0	38.6	481.0
1981	31.9	42.5	51.7	48.8	41.9	33.4	34.2	51.7	55.1	35.5	28.2	24.2	479.0
1982	39.3	35.8	37.0	30.7	40.9	37.8	41.9	48.1	42.6	46.7	39.8	39.7	480.4
1983	43.5	33.8	44.3	40.3	32.1	39.3	41.8	57.8	62.0	54.5	55.6	39.0	544.1
1984	46.6	43.8	36.6	34.6	36.4	26.7	26.9	35.5	38.5	39.1	40.8	29.6	435.2
1985	44.8	38.9	36.6	41.5	36.7	29.1	36.4	53.4	48.9	51.2	41.9	41.9	501.2
1986	44.5	33.5											

[1] Includes GSA metal. *Source: American Bureau of Metal Statistics, Inc.* T.363

Lumber & Plywood

The principal usage of softwood lumber is in housing, especially single-family homes. Yet despite total output of homes of nearly 1.8 million units in 1985, production of softwood lumber by domestic producers fell to under 19 billion board feet from approximately 31 billion board feet the prior year. There were two main reasons for the decline in output of softwood producers: a rising share of total dwelling construction going into multiple-family units, which require only one-third the amount of wood that goes into one-family homes; and heavy importation of softwood lumber, particularly from Canada and attributable in largest part to the unprecedented weakness of the Canadian dollar against the U.S. dollar. The decline in the value of U.S. currency, relative to those of the U.S.' major trading partners, during much of 1985 had little or no effect on U.S. exports of lumber during the year. The upshot of all these factors was that the domestic industry was burdened with unintended inventories and low prices.

In sharp contrast, domestic production of hardwood lumber rose smartly during 1985, up an estimated 9 percent over 1984. The prime mover for this gain was increased demand from producers of hardwood products, notably furniture, millwork, and materials-handling pallets. Prices for hardwood lumber were, on the whole, firm to slowly rising during the year.

More of the same for both softwood and hardwood lumber was the consensual forecast for 1986. Total housing starts were not expected to rise materially and, although single-family units might regain some of the market share they lost lately to multiple-family dwellings, they could lose still more ground to the fast-growing mobile-homes sector. And, while the value of the U.S. dollar, in terms of foreign currencies is down substantially from its heights of early 1985, significant growth in U.S. exports of softwood lumber seems unlikely in the near term; it will take some time for contractual arrangements between buyers and sellers to adjust to the new situation in the world's currency markets. On the other hand, the Canadian dollar remains at a low level, relative to its U.S. counterpart, which means that the bulk of Canadian production—most of which is exported—will be sold in the United States. Given all of the probabilities, the prospect for 1986 is a continuation of the course of events in 1985, to wit, domestic overproduction, inflated inventories, and low prices.

The U.S. trade balance in wood products showed a net deficit of about $2.2 billion in 1985. The dollar value of imports was almost double that of exports, primarily because of record-large softwood lumber imports.

Softwood exports in 1985 posted close to a 2.0 percent dollar gain, with shipments of logs, lumber, and wood chips accounting for 60, 25 and 9 percent, respectively, of the total. Softwood log exports registered an 11 percent increase for the year, with shipments to China up 23 percent and exceeding 1.0 billion board feet for the first time. Exports to Japan, the leading U.S. softwood export market were up 8 percent for logs in 1985, to 1.9 billion board feet. U.S. exports of softwood lumber in 1985 totaled 1.5 billion board feet, off 5 percent from the 1984 level. Japan continued as the most important market, importing 574.2 million board feet of lumber from the U.S., up 5 percent from 1984. Douglas-fir and hemlock accounted for the bulk of log exports and about 50 percent of lumber exports. Softwood plywood exports dropped 14 percent in 1985 to 320.5 million square feet, while wood chip exports totaled 2.3 million short tons, about the same as in 1984.

Imports from Canada of softwood lumber in 1985 totaled a record-large 14.2 billion board feet versus 12.9 billion in 1984. Softwood lumber imports from Canada accounted for about 30 percent of U.S. lumber consumption in both 1984 and 1985. Imports of wood shingles and shakes, primarily western red cedar from the Pacific Northwest, increased 2.2 percent in dollar volume. The International Trade Commission (ITC) conducted an investigation under Section 201 of the Trade Act of 1974 to determine whether increased quantities of shingle and shake imports from Canada were injuring the domestic industry, and in late February 1986, found that the U.S. shake and shingle industry had suffered economic injury from imports.

Fueled by continuing high rates of housing and non-residential construction, output of plywood of all types—hardwood, softwood, and particleboard—increased by 4 percent in 1985 over 1984. All of the growth, however, occurred in nonveneer structural panels. In physical terms, 1985's aggregate production of panels came to 22.6 billion square feet, $^{3}/_{8}$-inch basis. Prices, measured by the shipments-price index, were down from 1984 by 3.3 percent for softwood plywood and by nearly 11 percent for hardwood plywood; the price index for particleboard edged up roughly 1 percent.

Seen through the eyes of the American Plywood Association, the prospect for 1986 was bright. Although the APA expected the number of housing starts to remain about the same as in 1985, around 1.7 million units, it foresaw strong growth in home repairing and remodeling, non-residential construction (particularly, stores, schools, churches, and other "support facilities") and expanding exports, the last-named in response to revaluation of foreign currencies against the U.S. dollar. On the strength of this forecast, APA predicted that total output of plywood would again set a record, rising to 22.8 billion square feet during 1986. On these bases, prices should remain steady or rise modestly.

Salient Statistics of Lumber in the United States

	Industrial Roundwood Used for Production										National Forest Stumpage Prices					
Year	Lumber	Pulp Products	Plywood & Veneer	Other Pdts.[2]	Total[2]	Imports	Exports	Consumption	Fuelwood Consumption	Consumption Consum All Pdt's	All Eastern Hardwoods	Douglas Fir	Southern Pine	Western Hemlock	Ponderosa Pine	Maple
	In Million Cubic Feet										$ Per 1,000 Board Ft.					
1976	5,585	3,805	1,355	375	11,925	2,840	1,870	12,895	600	13,495	34.90	176.20	87.00	79.70	101.80	36.60
1977	5,950	3,645	1,425	385	11,960	3,310	1,795	13,700	1,030	14,730	37.90	225.90	100.30	89.30	131.40	41.20
1978	6,155	3,745	1,460	400	12,240	3,755	1,845	14,485	1,570	16,055	41.10	250.30	134.50	113.60	164.70	57.40
1979	6,115	4,110	1,370	410	12,510	3,655	2,135	14,470	2,270	16,740	46.80	394.40	155.20	200.80	239.00	33.90
1980	5,300	4,390	1,175	390	11,645	3,250	2,350	12,995	3,115	16,110	52.40	432.20	155.40	212.70	206.10	37.40
1981	4,610	4,125	1,180	350	10,710	3,165	2,090	11,985	3,650	15,635	50.90	350.20	172.00	163.40	195.20	41.50
1982	4,635	3,980	1,135	345	10,825	3,015	1,395	11,840	3,685	15,525	56.40	118.20	127.20	44.50	66.90	34.30
1983	5,730	4,180	1,365	400	12,395	3,705	2,105	13,995	4,120	18,115	60.10	161.60	140.60	62.20	104.00	25.00
1984[1]											90.10	132.90	139.40	61.80	122.70	48.60

[1] Preliminary. [2] Excludes fuelwood. Includes cooperage logs, poles & piling, fence posts, etc. *Sources: National Lumber Manufacturers Ass'n; U.S. Dept. of Commerce; Forest Service* T.367

United States Lumber Shipments In Millions of Board Feet

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1977	2,683	2,873	3,362	3,364	3,314	3,387	3,077	3,358	3,296	3,269	2,859	2,983	37,899
1978	2,699	2,741	3,158	3,133	3,355	3,548	3,156	3,357	3,250	3,262	3,116	2,907	37,948
1979	2,813	2,756	3,279	3,107	3,329	3,087	3,128	3,408	3,106	3,224	2,777	2,589	36,909
1980	2,707	2,791	2,538	2,343	2,512	2,530	2,454	2,716	2,708	2,851	2,494	2,350	31,371
1981	2,424	2,379	2,752	2,755	2,633	2,765	2,395	2,431	2,260	2,382	2,045	1,989	29,132
1982	1,637	1,837	2,148	2,336	2,308	2,513	2,363	2,450	2,260	2,506	2,353	2,162	25,960
1983	2,435	2,290	2,632	2,683	2,775	2,764	2,537	2,669	2,737	2,795	2,404	2,445	31,358
1984	2,589	2,603	3,022	2,875	2,852	2,993	2,756	2,950	2,688	3,154	2,922	2,397	36,598
1985[1]	2,666	2,602	3,013	3,496	3,349	3,031	2,944	3,294	3,162	3,221	2,828	2,809	36,887

[1] Preliminary. *Source: National Lumber Manufacturers' Association* T.368

Stocks (Gross) of Lumber in the United States, Beginning of Month In Millions of Board Feet

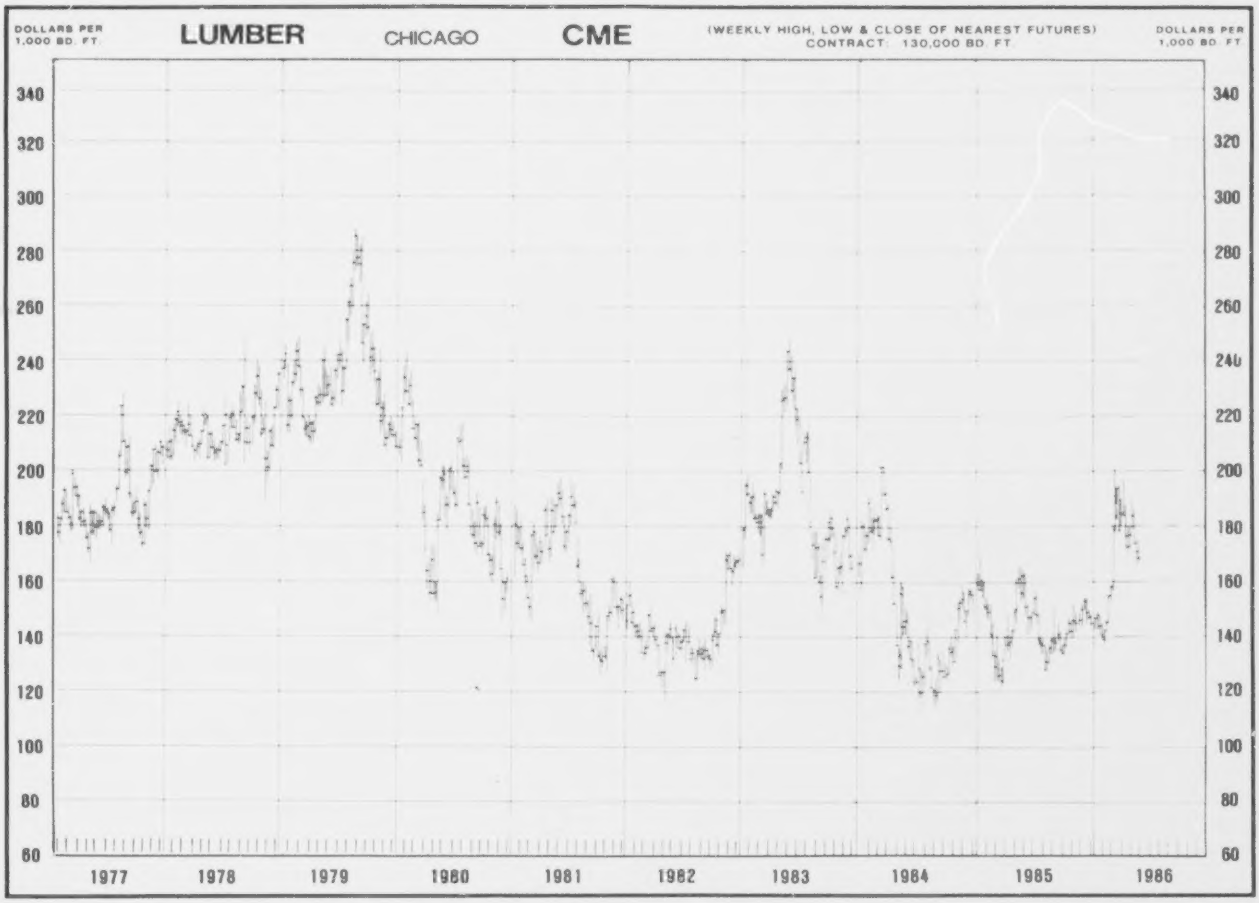
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1977	5,086	5,171	5,228	5,325	5,197	5,133	4,964	4,854	4,787	4,859	4,876	4,855
1978	4,850	4,963	5,128	5,201	5,190	5,038	4,877	4,705	4,632	4,669	4,740	4,731
1979	4,795	4,811	4,932	4,964	4,975	4,868	5,003	4,893	4,843	4,875	5,063	5,207
1980	5,342	5,301	5,374	5,721	5,769	5,568	5,534	5,570	5,659	5,776	5,832	5,826
1981	5,805	5,883	6,065	6,098	6,123	6,213	6,015	6,103	6,232	6,284	6,285	6,075
1982	5,910	6,016	6,068	6,042	5,983	5,915	5,853	5,867	5,977	6,163	5,986	5,881
1983	5,724	5,770	5,950	5,997	5,924	5,824	5,772	5,817	5,858	5,870	5,862	5,964
1984	5,866	6,021	6,097	6,178	6,287	6,283	6,257	6,186	6,176	6,265	6,239	6,327
1985[1]	6,225	6,299	6,415	6,488	6,282	6,198	6,445	6,535	6,555	6,603	6,770	6,792
1986[1]	6,632											

[1] Preliminary. *Source: National Lumber Manufacturers' Association* T.369

Lumber Production[1] in the United States In Millions of Board Feet

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1977	2,822	2,930	3,388	3,260	3,253	3,160	2,975	3,290	3,368	3,268	2,839	2,944	37,667
1978	2,843	2,904	3,222	3,127	3,203	3,333	2,988	3,263	3,285	3,333	3,102	2,931	37,896
1979	2,877	2,877	3,306	3,119	3,219	3,143	3,018	3,355	3,131	3,412	2,914	2,631	37,445
1980	2,798	2,855	2,879	2,257	2,307	2,486	2,479	2,783	2,818	2,903	2,480	2,329	31,858
1981	2,523	2,542	2,818	2,780	2,651	2,588	2,483	2,554	2,307	2,379	1,831	1,765	29,216
1982	1,810	1,891	2,148	2,281	2,251	2,338	2,376	2,560	2,445	2,333	2,247	2,004	25,795
1983	2,484	2,481	2,682	2,623	2,645	2,718	2,585	2,714	2,748	2,787	2,504	2,345	31,479
1984	2,740	2,678	3,104	2,983	2,828	2,968	2,685	2,933	2,776	3,154	2,814	2,295	36,675
1985[2]	2,727	2,718	3,085	3,296	3,256	3,101	3,034	3,299	3,196	3,387	2,851	2,649	37,164

[1] Adjusted with Census reports on lumber production. [2] Preliminary. *Source: National Lumber Manufacturers' Association* T.374



Month-End Open Interest of Lumber Futures at Chicago In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1979	8,420	9,059	7,851	7,127	8,055	7,380	8,901	11,039	10,426	10,664	10,125	10,260
1980	10,839	10,587	9,948	10,130	11,452	11,736	12,461	11,644	13,734	14,251	12,829	9,338
1981	8,882	9,053	8,029	8,102	7,639	8,161	8,554	7,586	7,690	8,809	8,808	9,067
1982	9,328	8,982	6,990	7,460	6,578	5,648	4,629	5,789	6,088	8,282	10,490	9,915
1983	10,492	10,610	10,793	11,425	9,070	8,187	7,963	8,552	8,324	6,771	6,595	7,512
1984	8,673	8,614	8,973	8,810	7,487	7,631	7,519	8,157	7,757	8,955	9,374	9,949
1985	9,702	8,984	8,447	9,045	9,764	9,224	8,708	8,346	7,397	6,965	6,687	6,383
1986	5,783	6,936	9,571	9,471								

Source: Chicago Mercantile Exchange T.370

Volume of Trading of Lumber Futures at Chicago In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	60,964	57,594	52,316	43,097	46,530	50,265	56,421	62,923	56,421	71,581	63,777	39,980	649,478
1980	59,063	61,288	73,412	86,057	81,960	68,528	76,296	65,740	73,660	76,984	59,076	58,376	838,676
1981	57,173	45,937	54,295	60,517	51,007	58,879	49,427	49,428	45,592	57,021	55,044	51,614	635,934
1982	51,268	45,193	44,717	44,116	40,828	47,512	34,624	35,432	29,835	47,761	51,046	44,387	516,619
1983	54,976	56,706	51,520	48,327	77,107	73,554	62,053	76,322	68,019	68,228	44,266	49,925	731,003
1984	51,170	70,031	57,075	68,314	88,009	59,592	60,156	65,739	60,035	61,012	52,496	59,939	753,568
1985	71,719	55,737	56,718	65,762	62,766	57,422	43,525	39,151	36,517	34,703	29,556	27,972	581,548
1986	29,570	34,647	61,718	64,176									

Source: Chicago Mercantile Exchange T.371

High, Low & Closing Prices of May Lumber Futures at Chicago In Dollars per 1,000 Board Feet

Year of Delivery		Year Prior to Delivery										Delivery Year					Life of Delivery Range
		Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
1980	High	—	—	—	215.0	217.0	227.0	239.5	241.0	227.5	230.2	244.4	242.2	219.3	183.0	160.0	244.4
	Low	—	—	—	208.5	211.0	214.0	222.0	197.7	201.2	216.5	215.3	215.0	181.5	153.1	146.5	146.5
	Close	—	—	—	212.7	214.6	222.7	233.5	206.3	222.8	218.4	234.1	216.3	185.5	161.5	152.2	—
1981	High	221.0	210.2	222.0	225.5	233.5	222.0	[illegible]5.5	214.0	220.0	210.7	205.2	198.3	181.4	190.4	181.0	233.5
	Low	176.0	164.0	202.0	210.6	218.0	191.9	195.3	194.2	205.7	175.5	185.3	169.5	164.3	163.2	167.1	163.2
	Close	178.1	204.5	220.8	218.5	219.1	196.9	198.5	207.4	208.5	194.5	195.8	169.8	169.6	178.4	175.5	—
1982	High	—	—	—	220.3	214.3	201.5	186.0	183.0	182.8	180.0	166.5	153.1	151.9	145.2	127.5	220.3
	Low	—	—	—	204.6	199.0	183.3	160.0	157.1	162.4	163.4	147.6	142.7	137.5	120.6	115.5	115.5
	Close	—	—	—	211.0	199.3	184.0	163.2	164.8	179.2	169.1	154.0	142.9	142.4	126.8	122.6	—
1983	High	192.7	186.5	178.4	171.0	168.5	170.9	169.3	179.6	191.7	195.3	209.5	206.6	194.6	193.6	221.7	209.5
	Low	180.0	172.0	170.0	151.5	154.8	155.2	157.6	157.9	178.6	181.1	189.8	190.7	183.8	182.7	191.5	151.5
	Close	185.0	174.0	175.5	157.5	158.6	166.0	159.7	178.7	185.9	191.0	204.9	190.7	184.6	193.2	217.2	—
1984	High	237.1	240.1	245.5	234.5	231.0	221.5	213.7	217.6	209.4	205.0	194.3	199.7	201.9	188.2	150.4	245.5
	Low	228.8	228.6	222.9	221.0	214.0	200.4	195.3	198.5	196.8	189.5	184.0	182.0	186.0	148.2	125.1	125.1
	Close	231.8	239.5	230.6	228.5	214.8	207.4	213.0	199.3	202.8	194.2	185.7	197.0	186.7	148.6	130.8	—
1985	High	219.0	215.5	187.0	178.7	167.5	176.2	165.0	171.3	174.1	174.0	176.7	163.0	148.3	147.4	149.9	225.0
	Low	214.0	185.6	167.0	160.5	147.4	153.5	151.0	154.0	165.9	158.5	163.0	146.6	121.1	122.5	136.1	121.1
	Close	215.5	185.6	175.5	166.0	154.2	155.5	157.5	169.5	170.8	173.3	164.0	147.0	124.2	137.4	148.7	—
1986	High	164.5	173.0	176.4	176.0	170.5	158.7	154.9	158.2	160.5	161.9	156.6	161.9	197.0	196.5		
	Low	153.0	154.0	162.0	165.5	154.5	145.2	145.6	147.7	153.0	155.0	143.3	140.0	159.1	169.0		
	Close	155.0	163.0	171.1	168.1	156.9	150.3	152.7	157.4	157.9	158.1	144.3	159.9	183.9	177.4		

Source: Chicago Mercantile Exchange

T 377

Residential Construction Contracts Awarded (All Types) in U.S. In Millions of Dollars

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1976	2,168	2,557	3,636	4,017	3,932	4,175	4,190	4,201	3,824	4,119	3,761	3,264	44,169
1977	2,967	3,519	5,328	5,503	5,803	6,043	5,703	6,198	5,641	5,534	5,359	4,340	62,017
1978	3,925	3,863	6,333	6,850	7,801	7,917	6,823	7,120	6,496	7,080	5,973	4,715	74,949
1979	4,530	4,588	6,984	7,185	8,084	7,309	6,882	7,075	6,184	6,808	4,704	4,173	74,557
1980	4,055	4,365	4,435	4,318	4,410	5,067	6,139	6,092	6,255	6,804	5,847	5,540	63,668
1981	4,227	4,167	5,957	6,617	5,855	5,805	5,810	4,726	4,704	4,718	3,648	3,677	60,164
1982	2,991	3,045	4,542	4,645	5,060	5,674	5,188	5,354	5,560	5,548	5,784	5,401	59,210
1983	5,080	4,942	7,945	7,859	8,594	10,223	8,532	9,113	8,698	8,223	7,604	6,596	93,567
1984	6,809	6,989	9,085	9,518	10,831	9,879	9,093	9,365	8,090	8,340	7,614	5,774	100,763
1985[1]	6,684	5,881	9,374	9,443	10,331	8,819	10,608	9,625	9,067	9,598	8,015	6,976	106,771
1986[1]													

[1] Preliminary. *Source: F. W. Dodge Co.*

T 372

United States Imports of Sawmill Products In Millions of Board Feet

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1976	477	527	627	701	669	573	890	680	781	715	759	779	8,178
1977	691	721	906	890	996	999	934	920	938	858	956	911	10,698
1978	865	840	939	915	1,173	1,117	1,194	1,119	1,014	1,091	979	954	12,199
1979	925	761	998	925	1,237	1,011	1,010	1,043	999	924	909	771	11,513
1980	727	923	896	655	730	830	876	804	863	867	892	799	9,859
1981	756	848	966	980	992	934	842	465	660	755	728	591	9,518
1982	530	585	601	792	848	888	874	888	962	758	916	781	9,421
1983	879	933	1,055	885	1,153	1,099	1,048	1,090	1,057	1,118	1,092	885	12,293
1984	941	1,135	1,108	1,098	1,073	1,172	1,202	1,191	1,298	1,185	1,104	1,108	13,614
1985	967	1,203	1,212	420	1,431	1,445	1,318	1,308	1,307	1,395	1,146	1,039	14,191

Source: Department of Commerce

T 373

LUMBER & PLYWOOD

Average Index Price of Softwood Plywood—Western $ per Ths. Board Feet 1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1979	354.3	351.7	351.5	345.6	329.8	304.1	319.1	324.3	327.6	327.4	309.4	300.4	328.8
1980	293.8	308.0	302.3	256.9	275.4	301.7	324.5	346.2	324.0	324.2	330.3	343.3	310.9
1981	326.4	330.0	323.3	332.2	319.7	329.4	322.1	311.0	301.9	283.7	286.7	296.7	313.6
1982	291.3	288.4	288.7	283.5	279.2	287.6	282.3	278.8	274.9	272.52	276.5	284.6	282.4
1983	292.0	299.9	302.3	302.3	304.4	327.5	325.4	314.4	302.3	307.1	303.4	308.7	307.5
1984	312.4	320.1	318.0	308.7	289.7	288.8	290.3	308.6	305.2	307.2	302.4	302.4	304.5
1985	299.1	291.1	287.0	285.5	303.9	319.7	324.5	320.1	304.6	308.1	301.7	300.6	303.8
1986	300.0	298.3											

Source: Bureau of Labor Statistics (0831-01) T 379

Average Index Price of Softwood Yellow Southern Pine (Dressed) Flooring[1] (C & Better) 1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1979	307.0	306.4	315.7	319.0	315.8	315.2	320.7	333.7	343.6	344.4	341.1	328.2	324.2
1980	322.0	322.2	317.2	281.2	280.1	287.3	296.4	304.1	295.1	282.3	286.9	293.7	297.4
1981	291.9	292.2	294.7	308.4	313.9	309.5	297.0	291.6	279.4	273.6	267.0	279.7	291.6
1982	278.0	273.4	273.4	285.3	283.1	298.4	305.1	288.6	287.5	279.3	284.9	293.4	285.9
1983	303.0	314.8	319.3	321.3	325.5	334.9	330.0	323.4	308.3	313.5	316.2	328.2	319.9
1984	334.0	337.8	336.1	334.5	320.4	317.1	318.8	318.4	308.5	305.4	302.4	304.8	319.9
1985	303.4	294.2	295.8	292.4	326.4	347.0	321.1	297.1	288.0	283.4	279.6	279.6	300.6
1986	287.6	287.5											

[1] Flooring, C and better, F. G., 1" × 4" × S/L. *Source: Bureau of Labor Statistics* (0811-02) T 381

Average Index Price of Ponderosa Pine[1] Softwood Lumber—No. 2 Dec. 1980 = 100[2]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1976	154.01	177.50	198.52	209.92	189.73	165.91	161.57	168.63	182.50	198.68	198.57	206.15	184.31
1977	227.16	232.18	245.58	251.21	239.98	216.44	219.96	232.57	236.48	235.28	215.40	226.17	231.53
1978	247.58	263.85	264.90	267.57	240.07	251.25	232.33	236.92	254.23	267.17	N.A.	317.01	237.07
1979	304.49	332.11	366.87	371.17	342.59	338.16	306.16	301.95	309.48	316.41	277.35	240.42	317.26
1980	252.62	291.36	314.97	242.34	215.48	252.06	310.05	327.35	304.06	293.25	306.22	340.83	287.55
1981[2]	102.9	102.3	103.7	107.8	111.2	110.4	106.9	103.6	100.0	93.0	90.6	93.4	102.2
1982	N.A.	95.0	97.6	99.0	97.7	97.3	98.3	95.6	91.7	87.9	86.1	90.8	94.5
1983	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	103.8	88.3	90.1	N.A.	91.3	93.4
1984	93.6	101.3	102.5	97.0	87.7	89.5	87.6	89.6	89.5	89.4	91.6	93.9	92.8
1985	95.6	97.5	98.4	94.9	92.2	103.3	98.7	94.9	89.7	93.6	95.3	97.5	98.0
1986	98.9	98.3											

[1] No. 3 1" × 12", B.L. (6' and over) [2] Prices prior to 1981 are for Ponderosa Pine in $ per Ths. Board Feet *Source: Bureau of Labor Statistics* (0811-0312.99) T 380

Average Index Price of Douglas Fir Softwood Lumber—Dimension, Construction, Dried, 2" × 4", R.L.[1] 1967 = 100[2]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1976	175.43	178.29	184.90	180.05	176.06	171.45	187.49	195.59	215.08	207.79	204.02	218.77	191.24
1977	228.38	225.50	232.09	226.05	225.42	213.79	230.93	242.51	256.92	237.27	218.03	227.70	230.38
1978	238.08	241.81	246.28	238.48	238.48	245.28	245.00	272.06	274.74	266.66	271.51	262.40	253.39
1979[2]	357.2	360.1	371.0	381.1	381.8	378.3	387.4	408.4	424.0	410.4	378.7	368.8	383.9
1980	363.3	367.1	358.8	327.1	329.6	353.2	358.7	360.0	357.1	354.5	352.9	353.4	353.0
1981	347.2	330.4	321.8	332.7	328.5	333.1	320.1	318.3	296.8	277.6	268.0	267.0	311.8
1982	266.4	259.4	258.5	265.6	262.1	271.8	277.8	268.9	269.6	261.8	259.9	272.5	266.2
1983	312.1	370.3	376.2	375.5	390.2	404.7	407.0	381.4	345.3	332.0	318.7	324.7	361.5
1984	322.8	351.7	369.7	364.3	335.8	322.8	307.8	309.2	312.5	301.6	312.8	325.8	328.1
1985	332.9	341.5	353.1	345.0	358.9	386.6	379.4	343.3	313.7	299.2	283.8	302.1	336.6
1986	316.1	304.3											

[1] Dried, S4S, mixed carlots, f.o.b. mill, rail shipment. [2] Prices prior to 1979 are in $ per Ths. Board Feet. *Source: Bureau of Labor Statistics* (0811-01) T 382

Magnesium

World production of magnesium in 1985 was virtually unchanged from the year before. Output by the U.S., the largest producer, fell 6% from the 1984 level while Soviet production increased marginally and Norwegian output rose. In the U.S., magnesium is derived from seawater and lake brines and from dolomite. There are three U.S. companies producing the metal—two using an electrolytic process on saltwater and the third obtaining the metal from dolomite. More than half of the metal in the U.S. is used in manufacturing aluminum base alloys, and the remainder mainly in magnesium castings and wrought products, reducing agents, and cathodic protection.

U.S. reported primary consumption of magnesium metal in 1985 expanded nearly 6% from 1984. Demand for the metal was strong, particularly in iron and steel desulfurization applications and in diecasting. One favorable development was that some automobile manufacturers announced they intend to replace certain aluminum components with magnesium in the near future. There is no government stockpile program for the metal.

The U.S., a net exporter of magnesium metal, shipped about 6% less of the metal in 1985 than the year before while the level of U.S. imports remained about the same. Exports in 1985 were mainly metal and alloys in crude form and scrap. Imports, mostly metal and scrap, came from Canada, Norway, France and Italy.

U.S. prices of primary magnesium ingots in 1985 were above the 1984 range at $1.48 per pound through most of the year. Diecasting alloy was priced at $1.26 to $1.30 per pound, the same as the previous year.

The U.S. Bureau of Mines estimates that domestic production and consumption of magnesium metal in 1986 will remain near 1985 levels. Using 1983 as a base, the agency predicts that demand for primary magnesium metal will expand an average annual 4% through 1990.

Resources of magnesium are found around the globe in practically unlimited quantities. Brines and seawater and dolomite and evaporate minerals containing magnesium are the major sources. Substitutes for magnesium in castings and wrought products include aluminum and zinc.

World Production of Magnesium (Primary and Secondary) In Short Tons

	Primary										Secondary Production			
Year	Canada	China	France	Italy	Japan	Norway	USSR	United States	Yugoslavia	World Total[1]	Japan	Un. Kingdom	United States	USSR
1975	4,217	1,100	8,303	6,993	9,412	42,259	66,000	N.A.		138,284				
1976	6,715	5,500	8,857	9,740	12,335	42,778	69,000	119,957	—	274,882	8,379	3,000	30,553	N.A.
1977	8,414	5,500	9,570	9,663	10,379	42,070	72,000	125,958	—	283,554	8,360	3,000	32,684	N.A.
1978	9,159	6,600	9,370	10,668	12,304	43,166	77,000	149,463	0	317,755	12,057	3,000	36,228	N.A.
1979	9,937	6,600	9,968	9,653	12,531	48,697	79,000	162,464	0	338,850	18,058	3,000	37,222	8,000
1980	10,199	7,700	10,282	8,693	10,199	48,890	83,000	169,477	0	348,440	26,314	3,000	40,461	8,000
1981	9,370	7,700	8,006	8,623	6,247	52,472	86,000	153,782	4,254	336,454	31,345	2,100	46,256	9,000
1982	8,700	7,700	10,593	8,466	6,123	39,598	89,000	102,197	4,697	277,074	23,887	1,940	43,232	9,000
1983[2]	6,600	7,700	13,007	8,473	6,643	32,954	91,000	115,431	4,680	286,488	14,343	2,000	46,329	9,000
1984[1]	8,800	7,700	12,100	8,257	7,830	55,000	94,000	159,207	4,700	357,594	16,900	2,000	48,090	9,000
1985[1]	9,000	8,000	12,000	10,000	8,000	60,000	95,000	139,614	5,000	357,000			50,000	

[1] Estimate. [2] Preliminary. *Source: Bureau of Mines* T.383

Salient Statistics of Magnesium in the United States In Short Tons

	Production								Domestic Consumption of Primary Magnesium					
		Secondary							Structural Products					
Year	Primary (Ingot)	New Scrap	Old Scrap	Total	Exports[2]	Imports for Consumption	Consumer Stocks Dec. 31[3]	$ Price per Pound[4]	Castings	Wrought	Total	Alumin Alloys	Other Uses[5]	Total
1975	120,203	18,090	9,783	27,873	32,591	7,903	19,664	.82	9,488	9,666	19,154	46,670	28,343	94,167
1976	119,957	19,024	11,529	30,553	13,444	14,907	17,295	.87-.92	7,051	10,241	17,292	54,320	32,841	104,453
1977	125,958	20,170	12,524	32,694	28,061	5,964	11,838	.96-.99	7,201	12,632	19,833	56,086	27,657	103,576
1978	149,463	22,135	14,093	36,228	41,807	6,668	12,583	.99-1.01	7,651	11,075	18,726	58,798	31,434	108,958
1979	162,464	23,340	13,882	37,222	54,280	4,754	13,901	1.01-1.09	7,460	11,562	19,022	60,549	29,273	108,844
1980	169,477	22,907	17,554	40,461	56,761	3,757	14,393	1.07-1.25	5,847	11,620	17,467	54,490	23,831	95,788
1981	153,782	22,073	24,183	46,256	34,855	6,897	11,367	1.25-1.34	4,951	10,376	15,327	50,518	25,616	91,461
1982	102,197	19,801	23,431	43,232	39,613	4,784	10,268	1.34	3,600	10,128	13,728	39,878	20,993	74,599
1983	115,431	21,591	24,738	46,329	46,690	6,350	11,329	1.34-1.38	3,341	11,435	14,776	46,026	21,174	81,976
1984[6]	159,207	21,207	26,883	48,337	48,337	9,381	6,963	1.43-1.48	4,199	10,248	14,447	48,675	27,095	90,217
1985[1]	139,614			50,000	40,322	9,271		1.48						95,000

[1] Estimate. [2] Metal & alloys in crude form, & scrap. [3] Primary magnesium. Gov't. agencies continue to hold quantities of primary magnesium. [4] Magnesium ingots (99.8%) f.o.b. Valasco, Texas. [5] Distributive or sacrificial purposes. [6] Preliminary. *Source: Bureau of Mines* T.384

Manganese

World manganese ore production in 1985 was estimated by the Bureau of Mines to be 2% higher than in 1984, mainly because of increased South African output. The USSR continued to be the world's largest producer, supplying 43% of total output in 1985, and was followed by South Africa providing 15%. Together, the Soviet Union and South Africa account for more than 80% of the world's identified manganese resources, which are sizable but irregularly distributed. Extensive world deposits of manganese as oxide nodules and crusts are found in the ocean.

In the U.S., there was no production of ore of 35% or more manganese during 1985 and the country relied on imports and stock drawdowns. U.S. imports of manganese ore rose 21% in 1985, and were supplied primarily by Gabon, South Africa, and Brazil; imports of ferromanganese, which came from South Africa and France, were 14% below those in 1984. The U.S., also an exporter of manganese, in 1985 shipped 83% less manganese ore and 14% more ferromanganese than in 1984.

Reported U.S. manganese ore consumption retreated 7% in 1985 while ferromanganese consumption fell 4%. Manganese ore was used mainly by twenty companies with plants in the East and Midwest. Most of the ore was upgraded to ferroalloys and metal for steel production, and the remainder was used in pig iron, dry cell batteries, and various chemicals. U.S. end uses of manganese ore in 1985 were broken down as follows: construction, 27%; transportation, 22%; machinery, 16%; and others 35%. Apparent U.S. consumption of manganese in 1985 was estimated by the Bureau of Mines to be up 7% from the year earlier, but was forecast to fall 4% in 1986. The Bureau predicts negligible annual growth in U.S. demand for manganese through 1990. Demand for the metal is closely linked with trends in U.S. raw steel production.

Manganese is included in the government stockpile and stockpile goals as of September 30, 1985 were for 2.7 million short tons of ore, 439,000 tons of high-carbon ferromanganese, 170,000 tons of chemical ore, 62,000 tons of natural battery ore, and 25,000 tons of synthetic dioxide for batteries. Actual inventories exceeded these goals except for metallurgical ore and synthetic dioxide which fell slightly below objectives. During 1985, 4,000 tons of natural battery ore were sold from the stockpile.

U.S. industry stocks of manganese ore at the end of 1985 were 446,000 tons, compared with 469,029 in 1984.

World Production of Manganese Ore (Gross Weight) In Thousands of Short Tons

Year % Mn	Australia[3] 37–53	Brazil 38–50	Bulgaria 29	China 30	Gabon 50–53	Ghana 30–50	Hungary[4] 30–33	India 10–54	Japan 24–27	Mexico 27–50	Morocco 50–53	South Africa 30–48 +	USSR 30–31	Yugoslavia 25–45	World Total
1980	2,204	2,515	54	1,760	2,366	275	91.0	1,865	87.7	492.9	144.8	6,278	10,750	33	29,086
1981	1,555	2,251	50	1,760	1,640	246	78.0	1,682	96	637	121	5,555	10,090	34	25,896
1982	1,238	2,580	50	1,760	1,667	176	91	1,596	86	561	106	5,750	10,830	31	26,595
1983[1]	1,492	2,306	50	1,760	2,058	191	65	1,455	85	386	81	3,181	10,890	29	24,093
1984[2]	1,874	2,425	50	1,760	2,336	132	66	1,433	68	571	63	3,361	11,100	30	25,341
1985[2]	2,100	2,400		1,800	2,300			1,400		500		3,800	11,000		25,800

[1] Preliminary. [2] Estimated. [3] Metallurgical Ore. [4] Concentrate. *Source: Bureau of Mines* T 385

Salient Statistics of Manganese in the United States In Thousands of Short Tons (Gross Weight)

		Manganese Ore (35% or More Mn)						Ferromanganese				Manganiferous Ore[3]		Silicomanganese	
		Consumption by Use													
Year	Net Import Reliance as a % of Apparent Consumption	Alloys and Metal	Pig Iron Steel	Dry Cells, Misc.	Imports For Consumption	Consumption	Stocks, Dec 31[2]	Domes. Production	Imports for Consumption	Exports	Consumption	Shipments	Value Mil. $[4]	Production	Shipments
1980	98	727.5	131.5	211.7	698	1,071	1,030	189.5	605.7	11.7	789.1	173.9	2.4	188	162
1981	98	744.8	147.8	184.0	639	1,077	1,036	192.7	671.2	14.9	820.9	174.8	2.9	173	173
1982	99	412.3	83.9	112.6	238	609	751	119.0	492.7	10.3	439.2	31.5	.3	69	83
1983	99	274.3	105.5	150.9	368	531	617	86	341.6	8.4	446.3	33.5	.2	N.A.	63
1984[1]	98	270.9	102.0	227.9	338	627	582	N.A.	409.3	6.8	492.2	88.4	9	N.A.	N.A.
1985[5]	100				386	670	480		361.9	5.2	470				

[1] Preliminary. [2] Including bonded warehouses; excludes Gov't stocks; also excludes small tonnages of dealers' stocks. [3] 5 to 35% Mn. [4] Combined value for total Manganese ore & Manganiferous ores. [5] Estimate. *Source: Bureau of Mines* T 386

Manganese Ore (35% or More Mn) Imported[2] into the U.S. In Thousands of Short Tons (Mn Content)

Year	Angola	Zaire	Brazil	Congo (Brazz.)	Canada	Ghana	India	Mexico	Morocco	Gabon	Australia	Turkey	South Africa	Total	Value Mill. $
1976	—	2.9	161.1	13.3	—	—	—	18.5	18.7	256.4	117.4	—	61.0	649	73.6
1977	—	14.7	111.6	—	—	—	—	34.9	17.1	245.2	13.8	—	16.9	454	56.4
1978	—	13.2	52.1	9.5	—	—	—	18.4	14.5	127.0	32.6	—	11.0	278.2	33.6
1979	—	—	51.7	22.5	—	—	—	2.1	10.7	49.2	55.3	—	52.1	243.6	27.5
1980	—	—	33.6	—	—	—	—	18.6	5.3	79.9	106.0	—	86.4	329.8	46.4
1981	—	—	38.9	—	—	—	—	25.8	13.6	90.6	34.3	—	97.5	300.7	42.6
1982	—	—	3.0	—	1.7	—	—	1.5	5.0	23.2	18.8	—	57.9	111.1	16.2
1983	—	—	39.1	—	—	—	—	25.6	—	85.5	15.1	—	12.7	178.1	19.9
1984	—	—	44.3	—	—	—	—	16.3	—	66.1	21.0	—	17.3	165.0	16.0
1985[1]			59.8					23.2	.1	64.1	43.1			190.3	

[1] Preliminary. [2] Imported for consumption. *Source: Dept of Commerce* T.387

United States General Imports[1] of Manganese Ore In Thousands of Long Tons—Manganese Content

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1976	101	39	83	68	53	161	45	134	87	75	93	114	1,053
1977	71	53	29	48	121	119	62	87	110	49	21	64	884
1978	94	50	113	50	71	55	82	42	97	62	64	63	842
1979	62	50	60	57	85	122	61	34	85	53	105	76	850
1980	109	56	54	66	97	68	54	67	60	38	57	69	795
1981	22	76	55	70	111	78	68	55	72	51	67	49	775
1982	65	49	65	55	22	58	35	33	14	25	32	15	477
1983	61	29	37	20	38	45	50	28	46	56	39	35	483
1984	39	63	33	64	33	68	46	52	31	37	33	35	535
1985	43.	66	81	130	35	63	80	53	41	61	97		

[1] General imports of ore, concentrates manganiferous ore, manganese alloys & metals. *Source: Department of Commerce* T.388

Production of Ferromanganese in U.S., & Materials Used in Its Manufacture

	Ferromanganese Produced	Manganese Contained		Silico-Manganese Production (Gr. Wt.) Sh. Tns.	Materials Consumed (Short tons)			
					Manganese Ore		Manganese Ore Used Per Ton of Ferromanganese & Silicomanganese	Ferromanganese shipments (Sh. Tons)
Year	Short Tons	Per Cent	Short Tons		Foreign	Domestic		
1976	482,662	79.0	381,328	129,000	1,208,336	53,632	2.0	
1977	334,134	78.8	263,136	120,000	889,296	35,769	1.9	
1978	272,530	80.6	219,707	142,000	740,906	90,660	1.9	
1979	317,102	80.2	254,389	165,000	785,664	125,130	1.8	
1980	189,472	79.7	150,982	188,000	691,250	34,877	1.9	194
1981	192,690	80.0	154,156	173,000	684,857	57,722	2.0	188
1982	119,000	82.0	97,500	69,000	412,000		2.2	98
1983	86,000	81.0	109,000	N.A.	283,000		N.A.	109
1984[1]	N.A.	82.0	N.A.	N.A.	N.A.		N.A.	N.A.

[1] Preliminary. *Source: Bureau of Mines* T.390

Average Price of Ferromanganese[1] (78% Mn-F.O.B. Plant) In Dollars Per Gross Ton—Carloads

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1976	432½	432½	432½	432½	432½	432½	432½	432½	432½	432½	425	417½	430.63
1977	417½	417½	417½	399½	399½	399½	399½	399½	399½	399½	399½	399½	404.00
1978	399½	399½	399½	399½	422.17	425	425	425	425	425	425	425	416.26
1979	440	440	440	465	490	490	490	490	490	493.48	510	510	479.04
1980	510	510	510	510	510	510	510	510	510	510	510	510	510.00
1981	510	510	510	510	510	510	510	510	510	510	510	510	510.00
1982	510	510	510	510	510	510	510	510	510	510	510	510	510
1983	510	510	510	510	510	510	510	510	510	510	510	510	510
1984	510	510	510	510	510	510	510	510	510	—No Quotes—			510

[1] Domestic standard. *Source: American Metal Mkt.* T.389

Margarine

Salient Statistics of Margarine in the United States In Million Pounds (Actual Weight)

				Domestic Disappearance[2]		Materials Used in Manufacture of Margarine								
Year	Stocks Jan. 1	Production	Exports & Shipments	Total	Per Person in lbs.	Edible Tallow	Cotton seed Oil	Soybean Oil	Peanut Oil	Corn Oil	Lard & Animal Fats	Safflower Oil	All Other Edible Oil	Total Primary & Secondary Fats & Oils
1976	60	2,628	20	2,601	11.9		51	1,671	38	218	44	10	58	2,091
1977	67	2,535	20	2,502	11.4		44	1,585	15	243	80	8	48	2,026
1978	80	2,520	31	2,499	11.2		42	1,593	—	211	74	10	27	1,997
1979	70	2,553	25	2,517	11.2	11	25	1,643	—	222	86	5	12	1,985
1980	81	2,593	24	2,576	11.3	10	25	1,653	—	223	104			2,016
1981	74	2,577	33	2,573	11.2	8	25	1,685		214	78			2,012
1982	61	2,596	31	2,582	11.1		21	1,718		220	29			1,997
1983	62	2,451	27	2,447	10.5		34	1,549		212	41			1,850
1984[1]	65	2,481	93	2,472	10.4		40	1,544		196	24			1,842
1985[3]														

[1] Preliminary. [2] Civilian & military. [3] Estimate. *Source: Bureau of Census* T.391

United States Production of Margarine In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1977	242.3	236.5	232.7	197.3	178.8	179.8	164.8	198.2	209.1	221.8	229.0	244.7	2,535
1978	219.8	224.6	243.0	186.8	183.7	194.6	166.0	200.6	207.6	222.2	220.6	250.0	2,520
79	233.1	214.8	242.9	186.8	197.5	193.0	188.3	199.0	205.9	225.8	224.6	241.5	2,553
1980	235.8	228.7	231.6	184.5	200.5	214.6	192.1	186.9	213.2	221.9	218.4	264.6	2,593
1981	235.5	214.4	231.6	196.3	182.1	214.3	184.7	192.5	223.3	220.9	232.6	248.2	2,576
1982	221.5	237.7	236.7	191.8	189.8	206.5	182.3	193.8	229.2	221.8	236.5	248.4	2,596
1983	209.0	221.8	225.1	184.1	192.8	205.5	161.3	192.9	219.4	210.4	202.2	226.7	2,451
1984	215.9	212.4	210.2	197.9	206.1	205.4	159.3	168.4	190.1	229.6	223.8	261.8	2,481
1985[1]	215.3	194.8	212.5	204.9	210.7	197.1	183.6	180.0	232.0	250.6	238.9	282.9	2,603
1986[1]	232.1	214.1	243.4										

[1] Preliminary. *Source: Bureau of the Census* T.392

Stocks[1] of Margarine in the United States In Millions of Pounds

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1977	67.2	67.4	70.7	71.8	77.3	91.0	81.0	73.7	68.6	58.9	74.0	70.0
1978	79.9	61.8	70.2	59.3	72.3	63.4	68.8	67.8	60.3	66.0	69.9	58.9
1979	69.5	66.8	82.1	67.5	77.3	75.2	78.3	68.7	77.1	72.7	81.6	64.9
1980	80.5	71.6	80.0	73.2	69.5	62.5	74.7	78.3	60.7	66.1	80.0	71.4
1981	74.2	62.2	68.3	76.8	66.1	74.2	87.0	79.8	87.7	75.4	62.5	64.2
1982	61.0	62.2	66.8	64.3	60.5	67.5	65.0	59.6	68.7	68.4	80.9	83.4
1983	62.1	62.7	64.0	76.5	62.7	62.1	58.2	62.8	58.8	52.3	56.9	66.0
1984	55.5	61.9	79.5	71.3	62.6	61.1	68.0	76.4	64.6	60.9	71.5	75.7
1985[2]	55.1	65.0	66.1	52.7	50.3	63.9	73.9	53.7	60.0	52.3	58.1	59.8
1986[2]	61.2	68.9	72.0	54.1								

[1] Producers' and warehouse. [2] Preliminary. *Source: Bureau of the Census* T.393

Average Wholesale Price of Margarine, Yellow, Quarters, F.O.B. Chicago In Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1977	33.8	34.0	39.5	42.5	44.3	43.9	42.4	40.3	38.5	37.4	36.9	36.1	39.1
1978	36.6	36.7	41.0	43.6	42.0	40.6	37.8	37.3	41.6	41.3	40.1	39.6	39.8
1979	40.3	41.3	42.3	41.4	40.6	41.1	42.6	42.3	43.9	42.4	37.9	42.1	41.51
1980	39.8	38.3	39.0	35.6	34.8	36.1	40.3	40.0	40.3	39.3	40.3	40.2	38.65
1981	35.8	35.9	37.1	38.2	36.6	37.7	39.4	39.0	37.4	36.9	36.9	36.9	37.33
1982	37.0	37.6	38.3	39.0	40.2	40.0	39.0	38.4	38.0	38.0	38.0	38.0	38.45
1983	38.0	38.0	38.0	38.0	38.0	38.0	38.0	41.2	44.0	42.0	40.5	39.7	39.45
1984	41.5	41.0	42.0	43.2	50.5	50.6	48.9	47.5	47.2	47.5	48.4	48.2	46.38
1985	46.2	49.0	48.2	52.1	51.1	51.4	49.8	49.6	46.4	42.7	41.3	39.8	47.30

Source: Department of Agriculture T.394

Meats

On a retail-weight basis, total red meat and poultry consumption in 1985 was a record 214 pounds per person, surpassing 1984's record by 3 pounds. Per person purchases of 79 pounds of beef and 62 pounds of pork, combined with stable lamb, mutton and veal consumption, brought total red meat consumption to 143.77 pounds, virtually unchanged from 1984 consumption. Total chicken consumption per person was 57.4 pounds, up from 55.7 in 1984, and turkey consumption rose about one-half pound per person to 11.9. Poultry consumption totaled 69.3 pounds per person, up from 67.1 in 1984.

Poultry consumption is expected to continue to expand in 1986, even though USDA estimates per capita red meat and poultry consumption to fall about 1 percent from 1985's levels. Beef consumption is expected to decline about 5 percent as supplies decrease from a year ago, and pork consumption may drop about 4 percent. Poultry consumption is projected to increase about 5 percent per person in 1986, with broiler consumption up about 4 percent and turkey consumption rising roughly 8 percent.

Lower meat prices in 1985, combined with the continuing economic recovery, helped to boost consumption. Retail meat prices, as measured by the BLS Retail Price Index, declined less than 1 percent in 1985, while the Consumer Price Index for all items rose 3.8 percent for the year. Retail beef prices decreased 7 cents per pound as beef supplies rose slightly because of record heavy dressed weights for cattle. The 5-percent increase in poultry supplies also pressured beef prices. Retail pork prices averaged $1.62 a pound, the same as in 1984. Poultry prices fell in 1985 also. The Retail Price Index for poultry declined to 216 (1967=100) from 218 in 1984.

The proportion of the retail price received by producers relative to that received by meat packers and distributors was record low for both beef and pork in 1985. The beef farm-to-retail spread increased to a record high of $1.17 a pound in July, and the record average at $1.06 a pound was up 6 cents from 1984. The pork farm-to-retail spread averaged 91 cents a pound, also 6 cents above 1984, but below 1983 levels.

Even though reduced red meat supplies in 1986 are expected to lend a boost to pork prices, rising poultry production and heavy supplies of pork will weigh on those price gains. In addition, the extent of declines in red meat supplies will be mitigated somewhat by the dairy whole-herd buyout program in the Food and Security Act of 1985. Participation in the program was expected to add about 450 million pounds of red meat to the market, much of it during the April–August period, but partially offset by USDA purchases of 400 million pounds of U.S. red meat. Both broiler and turkey production are expected to rise in 1986, with turkey production in particular spurred by good returns in 1985. Sharply expanded poultry production for 1986 slaughter is expected to push turkey prices below the high levels seen in 1985, and broiler prices are likely to remain about the same as 1985.

World Total Meat[1] Production In Millions of Metric Tons

Year	Argentina	Australia	Bel.-& Lux.	Canada	Czechoslovakia	Denmark	France	W. Germany	Japan	Italy	N. Zealand	Poland	Brazil	South Africa	Un. Kingdom	United States	U.S.S.R.
1973	2.6	2.3	.9	1.5	.8	1.0	3.0	3.4	1.1	1.9	1.0	1.8	3.3	.7	2.1	15.8	9.9
1974	2.6	1.9		1.6			3.4	3.8	1.2	2.0		2.0	2.9		2.3	17.1	10.5
1975	2.8	2.4	.9	1.6	.8	1.0	3.4	3.8	1.3	1.7	1.0	2.1	3.0	.8	2.3	16.7	11.0
1976	3.2	2.7	.9	1.7	.8	1.0	3.5	3.9	1.4	1.9	1.2	2.4	3.1	.8	2.1	18.1	10.0
1977	3.3	2.0	.7	1.7	.9	1.0	3.4	3.9	1.5	2.0	1.1	2.3	3.4	.8	2.2	18.0	12.7
1978	3.5	2.8	.9	1.7	1.3	1.1	3.5	4.1	1.7	2.0	1.1	2.7	3.1	.8	2.2	17.5	13.3
1979	3.5	2.5	1.0	1.7	1.3	1.2	3.7	4.2	1.8	2.1	1.1	2.7	3.0	.9	2.2	17.1	13.2
1980	3.3	2.3	1.0	1.9	1.3	1.2	3.7	4.3	1.9	2.2	1.1	2.6	3.2	.9	2.3	17.7	12.6
1981	3.4	2.2	1.0	1.9	1.3	1.2	3.7	4.3	1.9	2.2	1.2	2.0	3.2	.8	2.3	17.7	12.7
1982	2.7	2.5	1.0	1.9	1.2	1.2	3.5	4.2	1.9	2.2	1.2	2.3	3.4	.9	2.2	17.0	12.7
1983[2]	2.5	2.1	1.0	1.9	1.3	1.3	3.5	4.2	1.9	2.3	1.2	2.2	3.4	.8	2.4	17.8	13.6
1984[2]	2.7	1.9	1.1	1.9	1.4	1.3	3.8	4.4	2.0	2.3	1.1	2.1	3.1	.8	2.4	17.8	13.8

[1] Production of beef & veal, mutton & lamb, goat meat, & pork. Horsemeat included from 1976. [2] Preliminary. *Source: Foreign Agricultural Service, U.S.D.A.*

T.395

World Per Capita Consumption of Meat[1] (Total Red Meat) In Kilograms

Year	Argentina	Australia	Austria	Canada	Denmark	France	W. Germany	Ireland	N. Zealand	Poland	Switzerland	United Kingdom	United States	Uruguay	U.S.S.R.
1974	87	100	65	73	51	65	67	64	98	74	64	58	87	100	44
1975	99	109	68	73	54	66	67	67	103	73	64	58	83	100	45
1976	101.3	110.2	69.9	79.3	59.8	68.4	69.2	63.6	100.0	66.6	66.2	55.4	88.6	88.8	47.1
1977	101.2	110.1	71.1	76.8	58.7	69.4	69.6	62.4	107.2	65.5	69.5	58.1	87.2	96.8	51.0
1978	105.6	103.4	72.2	73.8	67.2	72.2	72.9	63.0	104.5	58.9	70.0	58.2	84.8	102.9	51.3
1979	103.0	88.3	73.4	71.1	66.9	74.2	74.3	64.9	100.2	57.8	70.2	59.9	81.7	81.5	51.7
1980[2]	103.3	83.8	74.3	73.6	71.0	75.1	75.7	65.9	98.1	56.6	76.8	58.2	83.9	94.0	49.8
1981[3]	103.2	77.7	74.9	72.4	72.1	74.5	75.7	65.9	97.9	48.2	77.9	56.1	80.0	95.1	47.9

[1] Summation of previous individual meat tables plus horse meat. [2] Preliminary. [3] Forecast. *Source: Foreign Agricultural Service, U.S.D.A.*

T.396

Total Red Meat Imports (Carcass Weight Equivalent[2]) of Importing Countries In Thous. of Metric Tons

Year	Belgium & Lux.	Canada	Czechoslovakia	France	South Korea	W. Germany	Greece	Italy	Japan	Netherlands	Spain	Switzerland	Un. Kingdom	United States	USSR
1977	121.2	194.3	21.4	556.2		627.0	110.9	612.9	649.0	175.3	59.2	26.0	1,280	1,100	496.2
1978	143.9	172.9	21.0	630.4		633.0	142.0	632.1	665.4	187.5	112.3	33.8	1,276	1,296	132.0
1979	99	140	21	541	108	648	140	684	610	149	124	25	1,245	1,348	469
1980	91	111	21	590	15	700	134	722	486	168	27	23	1,122	1,210	706
1981	88	110	21	579	45	687	80	690	612	146	16	31	1,072	1,058	786
1982	79	112	29	618	82	692	157	824	546	119	28	25	1,137	1,175	679
1983[1]	107	121	25	676	78	728	216	832	599	108	26	27	1,072	1,212	779
1984[3]	107	132	15	682	37	751	219	725	645	101	44	22	1,015	1,280	615

[1] Preliminary. [2] Excludes fat, offals & live animals. [3] Forecast. *Source: Foreign Agricultural Service, U.S.D.A.* T.397

Total Red Meat Exports (Carcass Weight Equivalent[2]) of Principal Countries In Thousands of Metric Tons

Year	Argentina	Australia	Brazil	Canada	Denmark	France	Ireland	Mexico	Netherlands	N. Zealand	Poland	United States	USSR	Uruguay	Yugoslavia
1977	669.6	1,335	240.0	112.1	695.6	312.2	363.8	34.1	697.2	790.9	131.8	236.0	49.2	134.6	88.0
1978	823.7	1,377	178.1	117.1	753.4	267.2	359.3	46.6	751.6	724.7	141.0	256.6	38.0	118.8	113.4
1979	728	1,306	111	133	832	306	342	7	785	783	155	211	33	84	82
1980	487	1,087	170	182	857	362	453	1	843	796	141	195	35	128	98
1981	508	966	281	207	905	415	324	1	932	817	60	240	53	185	72
1982	546	1,184	361	247	909	401	311	13	879	846	52	213	32	182	107
1983[1]	438	947	404	242	945	387	341	14	957	938	93	225	25	236	83
1984[3]	264	667	510	268	967	472	335	4	1,054	786	85	227	25	145	90

[1] Preliminary. [2] Excludes fat, offals & live animals. [3] Forecast. *Source: Foreign Agricultural Service, U.S.D.A.* T.398

United States Meat Exports by Type of Product In Metric Tons

	Beef and Veal				Pork								
Year	Fresh or frozen	Canned	Pickled or cured	Goat, lamb and mutton, fresh or frozen	Fresh or frozen	Hams and shoulders, cured or cooked	Bacon	Other pork, pickled, salted or otherwise cured	Other pork, canned	Sausage, bologna, and frankfurters	Variety meats fresh or frozen[1]	Other meats[2]	Total
1977	40,982		517	1,755	116,282	2,941	1,216	2,919	1,810	3,426	173,060	8,198	353,106
1978	51,710	2,296	1,263	1,375	84,120	3,934	1,655	7,524	2,932	3,653	185,831	6,801	353,095
1979	53,823	1,625	1,955	562	83,058	3,380	912	8,912	1,123	3,003	163,930	4,664	331,946
1980	55,003	1,995	2,505	595	69,966	3,327	820	8,438	1,667	3,296	200,417	7,427	355,454
1981	68,608	2,826	3,235	972	86,652	2,363	1,079	9,130	1,662	3,819	209,981	7,949	397,870
1982	78,781	3,028	3,858	676	58,541	1,358	774	7,514	1,289	3,404	230,344	5,291	394,857
1983	86,962	1,584	4,500	632	62,141	1,794	601	5,581	695	3,139	218,311	3,795	389,735
1984[3]	105,995	1,936	3,598	878	46,098	1,474	621	3,837	513	2,603	217,019	3,605	388,177

[1] Edible animal organs. [2] Includes sausage ingredients, cured (excluding canned); meat and meat products canned (n.e.s.); and baby food, canned. [3] Preliminary. *Source: Foreign Agricultural Service. Compiled from reports of the U.S. Department of Commerce* T.399

Production and Consumption of Red Meats in the United States (*Carcass Weight*)

	Beef			Veal			Lamb & Mutton			Pork (Excluding Lard)			All Meats		
	Comm. Production	Consumption		Comm. Production	Consumption		Comm. Production	Consumption		Comm. Production	Consumption		Production	Consumption	
Year	Mil. Lbs.	Total, Mil. Lbs.	Per Capita Lb.	Mil. Lbs.	Total, Mil. Lbs.	Per Capita Lb.	Mil. Lbs.	Total, Mil. Lbs.	Per Capita Lb.	Mil. Lbs.	Total, Mil. Lbs.	Per Capita Lb.	Mil. Lbs.	Total, Mil. Lbs.	Per Capita Lb.
1978	24,242	25,998	117.9	599	645	2.9	301	343	1.6	13,393	13,293	60.3	38,119	40,279	182.7
1979	21,262	23,522	105.5	411	450	2.0	282	332	1.5	15,270	15,353	68.8	37,225	39,657	177.8
1980	21,469	23,320	103.4	379	410	1.8	310	345	1.5	16,431	16,574	73.5	38,590	40,648	180.2
1981	22,214	23,756	104.3	415	438	1.9	327	360	1.6	15,719	15,927	69.9	38,675	40,481	177.8
1982	25,366	23,998	104.3	423	457	1.98	356	381	1.65	14,121	14,425	62.7	37,266	39,261	170.6
1983	23,058	24,710	106.4	429	457	1.97	368	388	1.66	15,120	15,369	66.2	38,974	40,924	176.2
1984[1]	23,416	24,900	106.2	479	503	2.15	372	398	1.70	14,720	15,396	65.6	38,987	41,197	175.9
1985[2]	23,548	25,231	106.6	499	525	2.21	352	383	1.62	14,400	15,643	66.0	39,118	41,889	176.7

[1] Preliminary. [2] Estimate. *Source: Economic Research Service, U.S.D.A.* T.400

U.S. Imports of Meats and Meat Preparations In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1978	138	155	183	202	181	167	161	137	182	184	201	181	2,072
1979	201	184	214	201	190	214	168	141	142	143	188	193	2,178
1980	196	152	166	134	173	154	208	170	133	207	167	191	2,052
1981	171	167	131	155	140	153	162	168	180	167	120	118	1,832
1982	127	106	160	169	167	215	158	234	246	194	124	114	2,015
1983	208	177	170	178	187	176	189	181	171	169	123	104	2,030
1984	180	167	171	198	161	128	209	198	189	226	175	159	2,160
1985[1]	193	179	207	213	214	221	230	232	226	198	196	201	2,510
1986[1]	225												

[1] Preliminary. *Source: Dept. of Commerce* T.401

United States Meat Imports by Type of Product In Metric Tons

Year	Beef and Veal: Fresh or frozen[1]	Beef and Veal: Canned, including sausage	Beef and Veal: Other prepared or preserved[2]	Lamb, mutton, and goat, except canned	Pork: Fresh and frozen	Pork: Canned[3]	Pork: Other prepared or preserved[2]	Sausage, all types[4]	Mixed sausage	Other meats n.s.p.f.[5]	Variety meats, fresh or frozen	Total
1977	564,894	43,124	25,618	9,885	12,215	120,388	534	2,209	1,387	3,725	2,591	786,570
1978	675,415	46,779	28,689	17,447	27,891	126,045	1,285	2,082	1,743	4,350	2,454	934,180
1979	713,354	45,890	28,721	19,714	46,268	113,518	1,575	2,434	1,849	5,619	4,695	983,637
1980	642,268	42,729	17,799	15,482	93,143	98,529	1,990	2,929	2,230	5,957	4,562	927,618
1981	544,610	34,932	23,303	14,384	98,226	94,102	1,496	1,935	2,103	7,896	3,560	826,547
1982	607,184	37,747	17,402	8,649	125,282	96,831	1,547	2,372	2,242	7,373	2,823	909,452
1983	565,997	59,073	16,766	8,752	121,707	125,593	2,300	2,176	1,911	8,396	3,935	916,604
1984[6]	516,960	57,863	19,864	8,693	207,703	142,423	3,372	2,243	2,121	7,129	5,707	974,078

[1] Includes prepared items. [2] Includes pickled and cured. [3] Includes canned hams, shoulders, and bacon. [4] Includes fresh and cured sausages. [5] Mostly mixed luncheon meats. [6] Preliminary. *Source: Foreign Agricultural Service. Compiled from reports of the U.S. Department of Commerce.* T.402

U.S. Exports of Meat and Meat Preparations In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1977	100	100	103	113	110	103	112	110	125	106	109	124	1,315
1978	109	101	115	108	108	99	93	119	131	124	119	111	1,338
1979	102	95	117	99	100	124	103	109	119	135	119	155	1,378
1980	101	108	144	132	139	164	145	129	136	165	144	154	1,663
1981	143	141	169	148	189	180	128	144	123	174	154	153	1,847
1982	129	147	124	131	167	147	111	108	112	133	143	115	1,566
1983	114	104	136	133	115	118	121	99	130	127	134	119	1,449
1984	112	104	134	106	114	103	128	119	123	139	121	119	1,422
1985[1]	119	110	118	112	116	116	130	139	118	139	122	123	1,462
1986[1]	124												

[1] Preliminary. *Source: Dept. of Commerce* T.403

Average Wholesale Prices of Meats In Cents Per Pound

Year	Composite Retail Price: of Beef (Choice)	Composite Retail Price: of Pork[4]	Composite Retail Price: of Veal	Composite Retail Price: of Lamb (Choice)	Steer Beef Carcass, Choice, Centr. U.S.	Fresh Beef, Steer Carcasses Choice, E. Coast	Lamb Carcasses Choice & Prime (55-65 Lb.) East Coast	Pork, Fresh Loins, (8-14 lbs.) N.Y.	Hams[2] N.Y. Fancy Skinned, Smoked 14-17 Lb.	Cured Pork Cuts, Picnics, (Smoked) 4-8 Lb.[1]	Live Broilers Georgia
1977	148.4	125.4	175.3	186.8	62.69	66.2	108.73	95.25	86.5	57.03	23.7
1978	181.9	143.6	209.5	219.6	80.43	83.9	120.68	109.15	99.63	70.08	26.0
1979	226.3	144.1	282.3	245.7	101.62	101.1	127.74	107.65	99.38	69.91	26.0
1980	237.6	139.4	309.5	252.7	104.44	104.4	134.98	101.14	88.99	67.01	27.0
1981	238.7	152.4	314.5	252.4	99.84	99.8	127.67	113.70	95.55	68.38	26.5
1982	242.5	175.4	N.A.	N.A.	101.31	101.3	122.15	127.66	111.98	78.19	25.0
1983[3]	238.1	169.8			97.83	97.8	125.86	115.90	75.60		27.0
1984[3]	239.6	162.0			100.11	100.1	131.89	115.73	78.22		32.0
1985[3]	232.6	162.0			90.76	91.3	145.93	113.60	67.65		28.2

[1] At NY. [2] Prior to 1978 prices are composite averages. [3] Preliminary. [4] Sold as retail cuts (ham, bacon, loin, etc.). *Sources: Bureau of Labor Statistics; Department of Agriculture* T.404

MEATS

Average Wholesale Price of Steer Beef Carcass, Choice[1], at Midwest Markets[2] In Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1976	66.68	62.22	56.97	65.85	63.56	62.45	58.20	57.05	57.24	58.36	60.85	62.52	61.00
1977	60.04	58.92	57.12	60.54	64.44	62.62	63.65	62.49	63.04	65.87	65.47	68.10	62.69
1978	68.74	71.08	74.88	81.43	88.48	85.95	84.81	79.94	81.96	82.14	80.98	84.75	80.43
1979	93.57	97.47	104.59	108.61	108.64	103.56	99.85	94.13	101.91	98.32	103.22	105.53	101.62
1980	102.26	103.70	103.15	99.41	102.00	105.18	110.11	111.96	107.97	105.49	101.44	100.57	104.40
1981	99.80	96.10	94.32	99.68	103.32	106.52	107.20	103.90	102.96	96.02	94.56	93.70	99.80
1982	97.40	101.20	103.80	109.50	115.10	111.20	102.60	100.80	95.50	93.00	92.90	92.62	101.30
1983	93.90	96.55	100.62	107.76	105.00	102.47	97.72	95.01	92.10	91.24	91.57	99.82	97.83
1984	105.74	102.86	105.14	103.50	99.62	98.54	101.26	97.61	94.37	92.38	99.08	101.22	100.11
1985	99.50	97.42	92.00	89.20	89.52	88.48	82.22	80.02	81.14	91.11	98.84	99.68	90.76
1986	92.30	86.80											

[1] 500–600 pounds. [2] Prior to Oct. 1975 prices are at CHICAGO. *Source: Economic Research Service, U.S.D.A.* T.405

Production[2] (Commercial Slaughter) of All Meats[1] in the U.S. In Millions of Pounds—Carcass Weight

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1976	3,267	2,907	3,515	3,109	2,928	3,150	3,048	3,350	3,467	3,497	3,453	3,367	39,060
1977	3,237	3,084	3,551	3,195	3,122	3,298	2,925	3,404	3,354	3,345	3,416	3,241	39,172
1978	3,215	3,045	3,342	3,079	3,269	3,081	2,883	3,274	3,139	3,355	3,345	3,094	38,119
1979	3,280	2,756	3,090	2,879	3,130	2,990	2,958	3,329	2,876	3,556	3,306	3,074	37,225
1980	3,398	3,050	3,099	3,315	3,311	3,089	3,070	3,016	3,221	3,577	3,097	3,349	38,590
1981	3,417	3,014	3,389	3,299	3,071	3,118	3,041	3,044	3,247	3,433	3,185	3,417	38,675
1982	3,152	2,894	3,296	9,097			9,165			9,659			37,266
1983	3,151	2,787	3,269	3,051	3,163	3,299	3,002	3,440	3,435	3,523	3,472	3,383	38,974
1984	3,219	3,092	3,349	3,079	3,411	3,205	3,045	3,362	3,111	3,672	3,324	3,119	38,987
1985[3]	3,420	2,938	3,161	3,294	3,486	3,080	3,276	3,401	3,251	3,545	3,119	3,144	39,115
1986[1]	3,482	2,935											

[1] Except for pork production & lard. [2] Represents the total dressed carcass weight of livestock slaughtered under Federal inspection, exclusive of meats from condemned animals. [3] Preliminary. *Source: Agricultural Marketing Service, U.S.D.A.* T.406

Cold Storage Holdings of All[1] Meats in the United States, at End of Month In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1976	643.4	652.8	703.1	724.3	740.9	698.1	645.4	597.6	637.7	687.8	725.9	733.3
1977	745.4	759.6	776.4	823.0	802.4	723.4	629.4	568.6	579.0	532.1	565.2	566.6
1978	559.1	571.6	658.4	753.0	759.8	720.6	644.9	581.0	598.1	639.0	715.4	723.6
1979	728.4	710.9	762.5	783.4	797.0	755.0	685.6	580.7	549.1	604.5	656.9	706.2
1980	735.3	712.6	695.4	715.5	706.5	641.9	578.5	514.3	510.0	584.2	678.6	749.6
1981	790.3	782.9	775.9	817.2	795.2	716.6	628.6	538.9	508.6	546.8	552.2	578.2
1982	553.4	524.2	536.0	—	—	503.9	—	—	473.9	—	—	553.8
1983[2]	573.4	571.0	576.3	607.6	619.2	595.5	569.8	543.3	535.3	576.7	667.6	679.3
1984[2]	692.9	707.7	738.1	777.5	818.9	776.3	713.8	627.6	646.2	674.9	681.4	696.0
1985[2]	735.0	702.9	721.2	772.7	784.9	755.6	738.8	678.6	656.0	645.8	633.0	607.4
1986[2]	616.8	615.3	621.1									

[1] Includes beef and veal, mutton and lamb, pork and products, rendered pork fat, and miscellaneous meats. Excludes lard. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.407

Cold Storage Holdings of Frozen Beef[1] in the United States In Millions of Pounds

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1976	349.8	342.8	355.7	390.6	390.8	399.7	395.3	382.6	362.8	382.4	405.0	429.6
1977	453.5	474.6	475.4	472.9	472.0	447.4	412.6	374.0	350.1	345.8	301.1	291.5
1978	315.6	313.1	318.4	357.2	376.0	388.2	372.3	336.5	315.7	332.2	348.4	388.2
1979	405.4	423.7	405.0	427.4	410.1	411.9	395.7	369.6	324.2	296.7	308.2	321.9
1980	350.3	367.3	357.6	335.1	296.6	277.9	256.5	242.5	228.6	219.7	243.8	279.0
1981	328.2	361.3	347.8	341.5	339.4	328.6	297.5	272.6	245.2	234.9	244.6	232.2
1982	256.7	249.1	223.3	211.9	—	—	189.7	—	—	247.7	—	—
1983[2]	294.4	303.1	307.0	299.1	277.3	265.2	254.0	252.3	267.4	268.2	278.0	316.0
1984[2]	325.0	338.0	332.5	325.7	324.6	312.8	303.2	301.7	290.0	319.6	326.0	340.1
1985[2]	357.7	375.1	347.0	334.0	328.0	300.9	292.5	319.7	310.6	308.4	294.9	302.3
1986[2]	317.4	318.4	302.3	297.6								

[1] Includes frozen beef, cured beef, and beef in process of cure. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.408

Mercury

Estimates by the U.S. Bureau of Mines put the world's aggregate production of mercury in 1985 at 188,000 flasks of 76 pounds each, or roughly 14.3 million pounds. Two nations account for upward of 60 percent of total output, the Soviet Union, with 34 percent and Spain with 23 percent. The world's resources of the mineral, which at current rates of consumption would be sufficient for nearly a century, amount to an estimated 17 million flasks, located principally in the U.S.S.R., Spain, Yugoslavia, and Italy. The global reserve base was estimated at 1985's end to be 7.2 million flasks, of which three-eighths are in Spain and 28 percent in Italy.

Domestic mine production in 1985, virtually all of it from a single company operating in Nevada, was estimated by the Bureau of Mines at 15,000 flasks, down sharply from the revised 1984 figure of about 19,000. Although production of mercury from secondary sources—such as used instruments, batteries, and industrial scrap—rose about 15 percent during the year, combined primary and secondary production fell more than 12 percent from 1984's level. Almost as much mercury was imported for consumption as was produced at home; domestic output amounted to 21,000 flasks, imports to 20,000. The latter number was 20 percent lower than in 1984, but well above the average of 11,400 imported during 1981–83. Further augmenting domestic supply were 3,300 flasks released during 1985 as excess from the National Defense Stockpile.

Reported consumption during the year was put tentatively at 49,000 flasks. The principal end users were electrical, 60 percent; electrolytic production of chlorine and caustic soda, 14 percent; paints, 10 percent; and industrial and control instruments, 5 percent. The average New York-dealer price per flask of mercury, which had fallen to $314.38 in 1984 from $413.89 in 1981, stabilized in 1985 at $315. In London the average price in 1985 was $295, down from $306.40 in 1984 and $417.52 in 1981.

In addition to its sales of excess mercury, the General Services Administration terminated its mercuric oxide disposal program by selling at auction the remaining excess quantity in the National Defense Stockpile. GSA also resumed its monthly auctions of surplus secondary mercury.

The Bureau of Mines estimated that 16,000 flasks of mercury would be mined in the United States during 1986; to this must be added some 18,000 flasks of surplus secondary mercury to be disposed of by GSA. Consumption during 1986 is projected at 49,000 flasks which, if accurate, will mean that demand for imports will remain strong. Over the longer term, it is projected that demand for the mineral, calculated on a 1983 base, will fall at an average annual rate of under 1 percent through 1990.

World Mine Production of Mercury In Flasks of 34.5 Kilograms (76 Pounds)

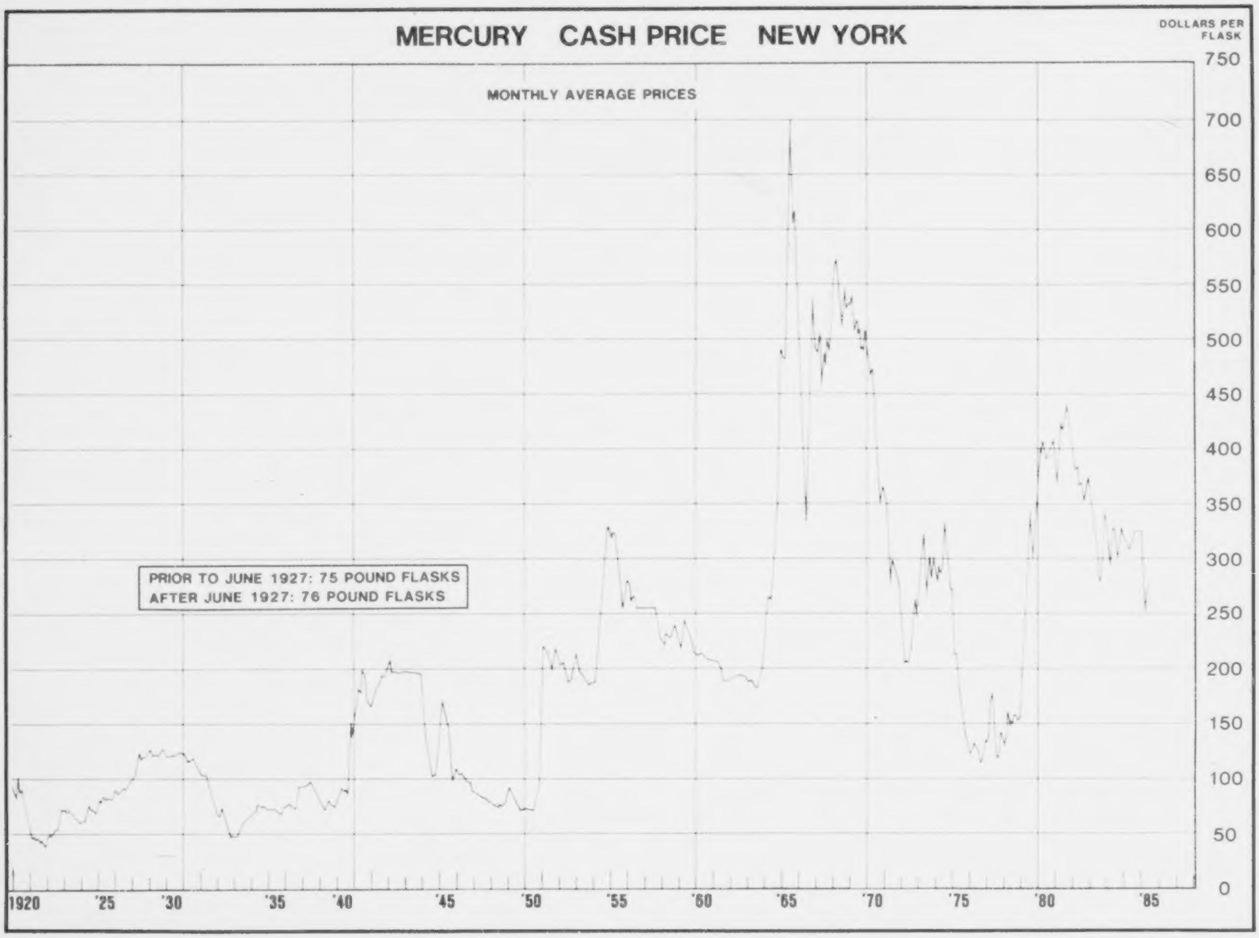
Year	Algeria	China[1]	Czechoslovakia	Dom. Rep.	Finland	Italy	Mexico	Spain	Turkey	United States	USSR[1]	W. Germany	Yugoslavia	World Total
1976	30,915	18,000	5,540	—	13	22,278	15,026	42,729	4,899	23,133	56,000	—	12,503	234,614
1977	30,429	20,000	5,309	—	630	406	9,660	26,851	4,686	28,244	58,000	2,872	3,133	190,736
1978	30,592	20,000	5,686	—	1,145	87	2,205	29,588	5,020	24,163	60,000	2,437	—	181,372
1979	14,719	20,000	4,960	281	1,348	—	1,973	33,275	4,722	29,519	61,000	2,639	—	174,436
1980	24,403	20,000	4,612	159	2,170	96	4,206	43,038	4,461	30,657	62,000	1,624	—	197,426
1981	25,000	20,000	4,438	77	1,949	7,427	6,962	46,008	5,927	27,904	63,000	2,205	—	210,897
1982	11,000	20,000	4,380	49	2,085	4,612	8,558	48,808	7,144	25,760	64,000	1,537	—	197,933
1983[2]	10,000	20,000	4,177	40	1,871	—	6,411	41,075	4,675	25,070	64,000	2,005	1,500	180,824
1984[1]	10,000	20,000	4,300	30	1,900	—	7,000	40,000	4,210	19,048	64,000	2,000	2,000	174,488
1985[1]	23,000						6,600	44,000	5,300	16,395	64,000			188,000

[1] Estimate. [2] Preliminary. *Source: Bureau of Mines* T.409

Salient Statistics of Mercury in the United States In Flasks (76 Pounds Each)

Year	Net Import Reliance as a % of Apparent Consumption	Ore Treated (1,000 Short Tons)	Mercury Produced[2]		Production		Stocks, Dec. 31			Exports	U.S. Imports (For Consumption) From:						
			Flasks	Pounds per Ton of Ore	Mine	Secondary	Producers	Consumers & Dealers	Total		Total	Algeria	Canada	Italy	Mexico	Spain	Japan
1976	62	185.1	23,042	9.5	23,133	3,363	9,494	22,240	31,734	501	44,415		2,853	13,172	1,719	4,824	
1977	44	216.6	28,244	9.9	28,244	6,566	11,275	22,903	34,178	852	28,750	8,806	1,708	671	4,668	8 790	—
1978	60	256.2	24,144	7.2	24,163	9,262	16,600	22,149	38,749	N.A.	41,693	8,751	895	5,913	813	13,923	4,428
1979	59	242.6	29,499	9.2	29,519	15,587	9,181	18,401	27,582	N.A.	26,448	100	3,943	4,429	403	8,507	7,960
1980	27	356.0	30,623	6.5	30,657	16,806	11,095	21,974	33,069	N.A.	9,416	—	843	—	989	3,352	3,813
1981	44	262.4	27,888	8.1	27,904	11,244	11,783	15,556	27,339	—	12,408	—	112	—	104	4,989	2,372
1982	32	301.0	25,704	6.5	25,760	4,473	13,598	15,229	28,827	—	8,916	—	5	—	182	1,404	4,345
1983	30	335.4	25,033	5.7	25,070	13,751	18,323	12,695	31,018	—	12,786	1,795	4	500	1,590	3,408	511
1984[1]	58	216.2	19,014	6.7	19,048	5,217	19,552	7,190	26,742	—	25,327	8,201	14	800	21	11,749	500
1985[3]	57				16,395	5,903	19,240	7,857	27,097		18,290	1,938	5	—	214	7,855	2,502

[1] Preliminary. [2] Excludes mercury produced from placer operation & from clean-up activity at furnaces & other plants. [3] Estimate. *Source: Bureau of Mines* T.412



Average Price of Mercury in New York In Dollars Per Flask of 76 Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1979	190.80	202.63	224.32	255.00	300.55	343.90	322.34	300.33	313.16	324.13	328.63	362.08	288.99
1980	383.75	399.90	420.00	406.81	398.33	389.57	397.11	397.26	402.62	407.83	404.56	376.19	396.72
1981	366.00	386.79	411.18	423.41	418.50	423.07	433.75	441.14	436.55	425.91	421.84	413.07	416.77
1982	405.00	380.92	390.76	384.32	365.88	367.50	364.29	343.30	352.55	373.21	373.75	374.29	372.98
1983	366.67	346.18	338.91	327.62	316.31	300.23	282.25	279.02	299.05	339.29	344.50	331.69	322.64
1984	318.67	295.68	300.45	324.26	328.27	325.48	314.64	302.09	317.18	329.07	327.13	320.08	316.92
1985	317.30	315.03	314.38	309.34			316.74	324.61	325.00	325.00	325.00	325.00	316.94
1986	285.68	261.97											

Source: American Metal Market T 410

Mercury Consumed in the United States In Flasks

Year	Batteries	Chlorine & Caustic Soda	Catalysts	Dental Equip.	Electrical Lighting	General Lab. Use	Measuring & Control Instrum.	Other Instruments + Relat.	Paints	Wiring Devices & Switches	Other	Grand Total
1980	27,829	9,470	765	1,779	1,036	363	3,049	190	8,621	3,062	790	58,983
1981	29,441	7,323	815	1,613	1,043	328	5,671	253	7,049	2,641	242	59,244
1982	24,880	6,243	499	1,019	826	281	3,064	194	6,794	2,004	984	48,943
1983	23,350	8,054	484	1,597	1,273	280	2,465	N.A.	6,047	2,316	1,356	49,138
1984[1]	29,700	7,347	359	1,432	1,487	217	2,842	N.A.	4,651	2,723	1,404	54,602
1985[2]	27,622	6,572		1,579	1,420	408	2,491		4,686	2,764	263	52,513

[1] Preliminary. [2] Estimate. *Source: Bureau of Mines* T 413

Milk

According to preliminary data, production of cow's milk worldwide was about 1 percent greater in 1985 than the 413 million tonnes produced in 1984. The ten-nations European Community accounted for 25.5 percent of the total, the Soviet Union another 24 percent, and the U.S. another 15.6 percent. Output fell some 3 million tonnes in the EC-10 during 1985, but rose 2.1 million tonnes in the USSR and 3.6 million tonnes in the U.S.

In the United States, powerful forces continued to work upon both the demand for and supply of fluid milk. On the demand side, dietary changes dictated by health worries are altering patterns of fluid milk's usage. Consumption per capita of whole milk fell again in 1985, extending a decline that began several years before; the 4-percent drop in 1985 left per capita consumption at 122.3 pounds for the year. Similarly, consumption of whole cottage cheese dropped 1.4 percent, to 4 pounds per capita, in 1985. On the other hand, 1985 saw sharp gains in consumption of: skimmed milk, up 8.8 percent to 11.9 pounds per head; low-fat milk, up 3.9 percent to 80.8 pounds per head; low-fat cottage cheese, up 5 percent to 1 pound; and yogurt, up 12.6 percent to 3.6 pounds.

On the supply side, governmental policy continued to play a dominant role. As noted, the termination in 1985 of the dairy diversion program contributed to 1985's output gain. In addition, dairy-product purchases under the federal price-support program climbed steeply in 1985. USDA's net removals of surplus were estimated at year's end to be 13.5 billion pounds, 57 percent greater than in the year before, despite a mid-year reduction of $1 per cwt., to $11.60, in the federal support price.

Producers' prices of all fluid-milk items rose an estimated 2.4 percent in 1985. On an individual basis, the manufacturer's price for whole milk was up an average of 2.3 percent, for low-fat milk it was up 1.4 percent, and for skimmed milk the gain was 2.9 percent. Reflecting these increases, retail prices were also higher in 1985 than in 1984. The price of a half-gallon of whole milk rose 1.4 percent on the average, while that of low-fat milk was up 1.9 percent, and 8 ounces of yogurt with fruit jumped 8.3 percent.

For the world as a whole, cow's-milk production in 1986 was projected to rise to 422.4 million tonnes, up about 1.4 percent from 1985. This projection assumed, however, an increment of more than 2 million tonnes in the U.S.' output. The accuracy of the latter estimate is much in doubt, because of provisions in the Food Security Act of 1985. One feature of that statute is the dairy-herd buyout program, under which participating farmers would terminate milk production and either sell for export or slaughter all their dairy cows, heifers and calves. Participants would also be required to enter into contracts to remain out of the milk-producing business for at least five years. USDA forecast that over the 18 months beginning in April 1986 milk output in the U.S. would fall by 12 billion pounds. The USDA in late March announced it had tentatively accepted 13,988 bids to participate in the program. The maximuim bid accepted was $22.50/cwt. These bids were expected to result in a reduction of milk production by 12.28 billion lbs. during the 18-month program, slightly above the 12.0 billion target level. However, dairy economists generally believe that in the absence of a further reduction in the milk support price, from $11.60 to $10.50 per cwt., output will not decrease in the short term and may even rise, if dairy farmers boost production to compensate for the most recent cut in the support price.

There is little prospect for any significant reduction in retail milk prices during 1986. If output cuts are achieved, that would buoy prices to final buyers. And if output rises, federal purchases of milk unbought by commercial users and consumers will hold prices at least in place.

World Fluid Milk Production (Cow's Milk) In Millions of Metric Tons

Year	Australia	Brazil	Canada	Czechoslovakia	Denmark	Finland	W. Germany	USSR	India	Netherlands	New Zealand	France	Poland	Switzerland	United Kingdom	United States
1980	5.6	10.3	7.9	5.9	5.1	3.3	24.8	90.6	15.5	12.0	6.8	26.9	16.7	3.7	16.0	58.3
1981	5.3	10.5	8.0	5.9	5.0	3.2	24.9	88.9	14.0	12.1	6.7	26.8	15.3	3.7	15.9	60.3
1982	5.4	10.1	8.3	5.9	5.2	3.2	25.5	91.0	14.9	12.7	6.8	27.4	15.3	3.7	16.7	61.5
1983	5.7	10.7	8.0	6.5	5.4	3.2	26.9	96.5	16.0	13.2	6.9	27.9	16.1	3.7	17.3	63.4
1984[1]	6.1	10.8	8.2	6.8	5.2	3.2	26.0	97.9	17.1	12.8	7.7	27.6	16.8	3.9	16.6	61.4
1985[2]	6.2	10.4	8.2	6.7	5.1	3.1	25.0	100.0	18.5	12.3	7.8	27.0	16.3	3.8	15.9	65.0

[1] Preliminary. [2] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T.414

U.S. Milk-Feed Price Ratio[1] In Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1980	1.54	1.57	1.55	1.55	1.53	1.50	1.47	1.42	1.39	1.42	1.40	1.38	1.48
1981	1.39	1.39	1.41	1.39	1.35	1.36	1.40	1.43	1.48	1.53	1.56	1.54	1.44
1982	1.55	1.53	1.53	1.51	1.46	1.46	1.47	1.49	1.56	1.61	1.62	1.60	1.53
1983	1.59	1.56	1.55	1.49	1.45	1.43	1.45	1.41	1.36	1.39	1.36	1.34	1.45
1984	1.33	1.33	1.34	1.32	1.32	1.33	1.35	1.40	1.48	1.56	1.62	1.59	1.42
1985[2]	1.58	1.57	1.55	1.51	1.47	1.44	1.44	1.47	1.51	1.56	1.55	1.53	1.51
1986[2]	1.52	1.50	1.48	1.46									

[1] Pounds of 16% protein ration equal in value to one pound of milk. [2] Preliminary. *Source: Economics & Statistics Service, U.S.D.A.* T.420

MILK

Milk Cows & Cattle and Milk Production in the U.S.

Year	Number of Milk Cows on Farms[2] (Thousands)	Production Per Milk Cow[3] — Milk — Pounds	Production Per Milk Cow[3] — Milk Fat — Pounds	Total Milk Production[3] — Quantity Billion Pounds	Total Milk Production[3] — % of Fat in All Milk Produced	Total Milk Production[3] — MilkFat Mil. Lbs.	Milk Sold to Plants & Dealers — Quantity Billion Pounds	Milk Sold to Plants & Dealers — $ Per 100 Lbs	Milk Sold Directly to Consumers — Quantity Million Quarts	Milk Sold Directly to Consumers — ¢ Per Quart	Milk Utilized Bill. Lbs.	Farm Value of All Milk Mill. $	Per Capita Consumption in pounds — Milk-Fat Basis	Per Capita Consumption in pounds — Fluid Milk[4]
1979	10,734	11,492	420	123.4	3.66	4,512	119.4	12.02	692.7	42.3	120.9	14,942	548	232
1980	10,799	11,891	435	128.4	3.65	4,692	124.6	13.05	683.5	45.3	126.1	16,876	544	227
1981	10,898	12,183	444	132.8	3.64	4,836	129.0	13.77	684.7	48.3	130.5	18,415	542	222
1982	11,011	12,306	450	135.5	3.65	4,950	131.9	13.61	597.8	48.1	133.1	18,559	560	216
1983	11,098	12,585	460	139.7	3.66	5,105	136.1	13.58	563.4	48.4	137.3	19,081	577	215
1984[1]	10,833	12,506	458	135.5	3.66	4,964	131.2	13.46	539.7	49.2	132.4	18,343	582	217
1985[1]	11,925	13,031		143.7										

[1] Preliminary. [2] Average number on farms during year excluding heifers not yet fresh. [3] Excludes milk sucked by calves & milk produced by cows not on farms. [4] And cream (milk fat basis). *Source: Crop Reporting Board, U.S.D.A.* T.415

Utilization of Milk in the United States In Millions of Pounds (Milk Equivalent)

Year	Butter from Whey Cream	Creamery Butter[1]	Cheese[6]	Cottage Cheese (Creamed)	Condensed Whole Milk	Evaporated Milk[5]	Dry Whole Milk Products	Frozen Dairy Products[2]	Fluid Consumption — Nonfarm	Fluid Consumption — Farm[3]	Fed to Calves	Other Mfg. Products[4]
1979	2,810	19,381	31,557	1,028	568	1,752	627	11,679	51,373	1,040	1,437	912
1980	2,998	22,826	33,925	1,016	524	1,594	607	11,926	50,855	943	1,395	909
1981	3,192	24,614	36,546	977	639	1,669	686	11,964	50,215	886	1,418	821
1982	3,365	24,987	38,903	950	704	1,490	758	12,135	49,346	839	1,521	656
1983[3]	3,554	25,788	41,006	941	648	1,525	823	12,598	49,705	842	1,527	663
1984[7]	3,406	21,471	38,718	932	724	1,419	880	12,660	50,624	824	2,250	488

[1] Excludes whey butter. [2] From milk and cream only. [3] Preliminary. [4] Includes dry cream, malted milk, dry part skim milk, dry ice cream mix. [5] Data includes evaporated & sweetened condensed milk. [6] American & other. [7] Estimate. *Source: Crop Reporting Board, U.S.D.A.* T.416

Milk Production on Farms in the United States In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	10,320	9,972	10,945	11,024	11,697	11,335	11,075	10,792	10,353	10,461	10,055	10,494	128,525
1981	10,803	10,149	11,519	11,531	12,078	11,552	11,361	11,106	10,625	10,763	10,393	10,890	132,770
1982	11,106	10,361	11,700	11,607	12,191	11,781	11,618	11,370	10,939	11,053	10,644	11,135	135,505
1983	11,443	10,707	12,029	11,956	12,616	12,261	12,046	11,672	11,218	11,400	10,979	11,345	139,672
1984	11,373	10,856	11,713	11,660	12,219	11,710	11,487	11,205	10,784	10,913	10,524	11,006	135,450
1985[1]	11,291	10,525	11,929	12,082	12,885	12,532	12,588	12,388	11,857	12,058	11,564	11,968	143,667
1986[1]	12,176	11,297											

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.417

Average Price Received by U.S. Farmers for All Milk[2] (Sold to Plants) In Dollars Per Cwt.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average[1]
1980	12.80	12.80	12.80	12.70	12.60	12.50	12.60	12.80	13.20	13.70	14.00	14.10	13.00
1981	14.10	14.00	13.80	13.70	13.50	13.40	13.40	13.50	13.70	14.00	14.00	14.00	13.80
1982	14.00	13.80	13.70	13.50	13.20	13.20	13.20	13.30	13.60	13.80	13.90	13.90	13.59
1983	13.90	13.80	13.60	13.60	13.30	13.20	13.20	13.30	13.50	13.80	13.90	13.70	13.57
1984	13.60	13.40	13.30	13.10	13.00	12.90	13.00	13.20	13.60	14.00	14.30	14.00	13.45
1985[3]	14.00	13.70	13.30	12.90	12.50	12.10	12.10	12.10	12.30	12.60	12.60	12.60	12.73
1986[3]	12.50	12.40	12.20	12.00									

[1] Weighted average. [2] Adjusted for seasonal variation. [3] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.418

Farm Price of Milk[1] Eligible for Fluid Market In Dollars Per Hundred Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1980	13.00	13.00	12.90	12.80	12.70	12.70	12.70	13.00	13.40	13.90	14.10	14.30	13.20
1981	14.20	14.20	14.00	13.80	13.70	13.60	13.60	13.70	13.90	14.20	14.20	14.20	14.00
1982	14.10	14.00	13.80	13.60	13.40	13.30	13.40	13.40	13.70	13.90	14.10	14.10	13.80
1983	14.00	14.00	13.80	13.70	13.50	13.30	13.30	13.50	13.70	13.90	14.10	13.90	13.70
1984	13.80	13.50	13.40	13.20	13.10	13.00	13.10	13.30	13.80	14.10	14.40	14.20	13.60
1985	14.20	13.90	13.50	13.00	12.60	12.30	12.20	12.30	12.30	12.60	12.70	12.70	12.90
1986	12.70	12.50	12.30	12.10									

[1] MILK, Standard Grade, 3.5% milkfat. Weighted average price per 100 pounds (f.o.b. city). *Source: Crop Reporting Board, U.S.D.A.* T.419

Molasses

World industrial molasses production for 1985/86 was expected to be virtually unchanged from 1984/85 production of 33.7 million tonnes.

Brazil's production fell to 4.8 million tonnes in 1984/85, down from 5.13 million in 1983/84. Production from the largest molasses producer was expected to remain near 4.8 million tonnes in 1985/86, with most of that production produced domestically.

Production was expected to continue to expand in the USSR, the second largest producer. In 1984/85, production rose slightly to 2.78 million tonnes from 2.72 million the previous season. All molasses produced in the USSR is for domestic consumption, however. USDA estimates almost half of the molasses is utilized for spirits, 30 percent for livestock feed, 15 percent for baking yeast, and the remainder for food acids, solvents, and other uses.

Production in India in 1985/86 was expected to be slightly above the 2.5 million tonnes produced in both 1983/84 and 1984/85. Exports from India were down sharply in 1984/85 at 150 million tonnes from 510 million exported in 1983/84, and USDA said exports could increase in the 1985/86 crop year. Production levels in 1985/86 were expected to be consistent with those of 1984/85 in Cuba and the European Economic Community, and slight declines were expected in Poland and South Africa.

In the U.S., 1985/86 molasses output was expected to remain the same as the previous year's 1.7 million tonnes. Imports were generally expected to continue to rise in 1985/86. In the 1984/85 crop year, U.S. imports increased to 1.7 million tonnes from 1.35 million in 1983/84. Major sources of imports included Australia, Mexico and Brazil. For calendar year 1985, the value of U.S. inedible molasses imports was $89.5 million compared with $94 million the previous year, according to the USDA. U.S. imports of inedible molasses in 1985 totaled 309 million gallons, up 17 percent from 257.2 million gallons in 1984.

World Production of Molasses (Industrial) In Thousands of Metric Tons

Crop Year	Argentina	Brazil	Cuba[2]	France	W. Germany	India	Italy	Mexico	Philippines	Poland	Australia	Thailand	United Kingdom	United States	USSR	World Total
1978–9	818	5,000	1,296	952	685	2,564	365	1,410	818	657	577		103	2,148	3,306	32,688
1979–0	789	4,800	1,185	958	653	1,582	390	1,260	818	653	598		350	2,054	3,062	30,052
1980–1	654	5,400	1,111	1,013	657	2,129	410	1,145	860	430	713		360	2,012	2,669	30,941
1981–2	565	4,520	1,200	1,404	836	3,400	500	1,373	941	665	719	1,736	350	2,051	2,385	34,384
1982–3	541	5,110	1,050	1,364	807	3,700	370	1,270	957	758	726	1,316	450	1,900	2,530	35,139
1983–4[1]	556	5,130	1,150	1,050	589	2,400	380	1,340	845	765	718	1,112	360	2,015	2,600	32,655
1984–5[3]	580	5,000	1,150	1,100	700	2,400	370	1,380	760	696	750	1,200	375	2,015	2,650	33,444

[1] Preliminary. [2] Includes hi-test molasses. [3] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T.421

Salient Statistics of Industrial Molasses in the United States In Millions of Gallons

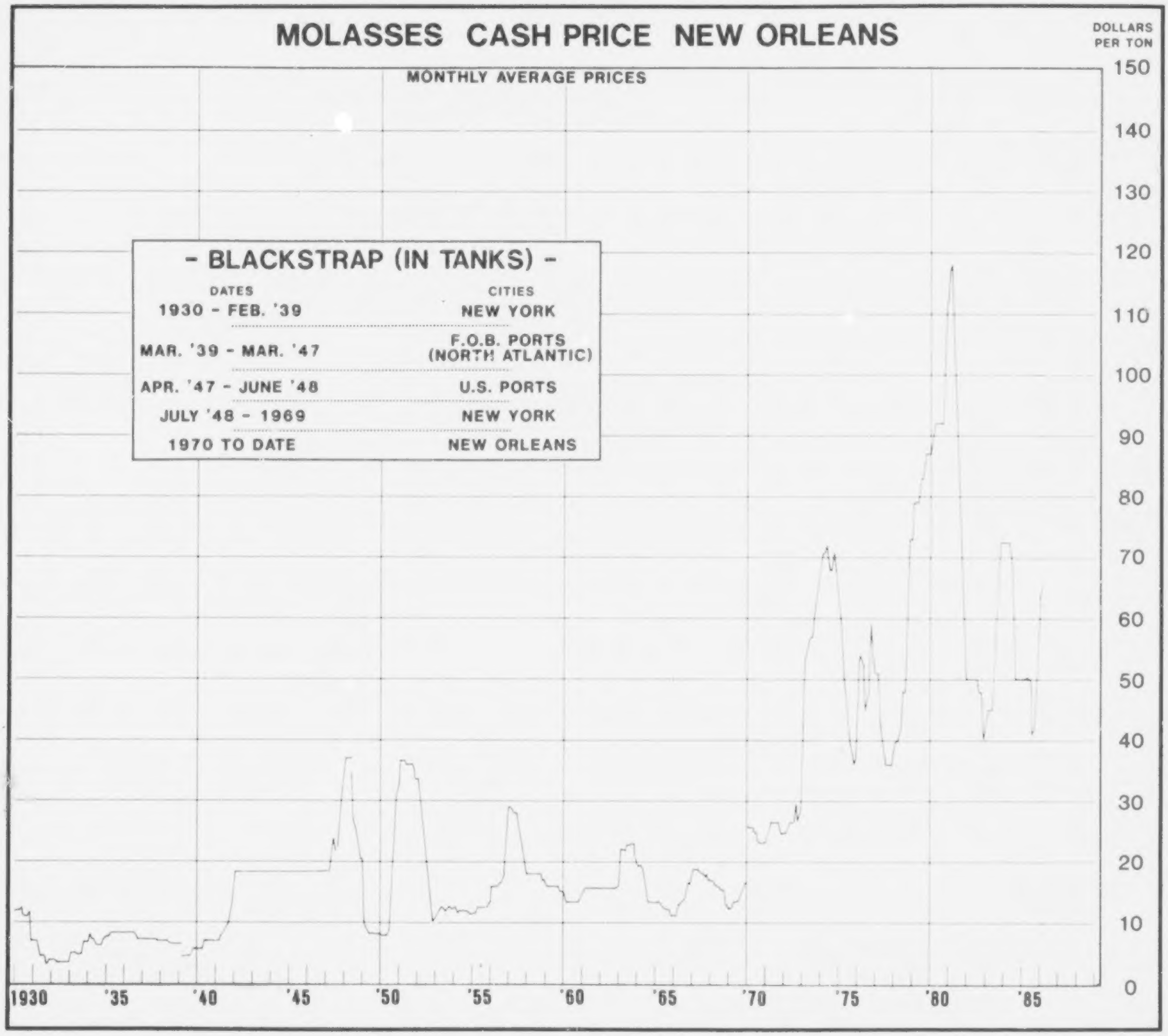
	Production in Mainland Areas									Domestic Utilization					
Year	Mainland Cane	Domestic Beet	Refiners Blackstrap	Citrus	Hydrol	Total	Imports	Total Available Supplies	Exports	Distilled Spirits	Pharmaceuticals & Other Edibles	Yeast Citric Acid & Vinegar	Total Industrial	Livestock Feeding[2]	Total Utilization
1978	106.7	140.2	44.6	4.3	41.7	337.5	271.0	639.8	20.3	7.4	25.6	92.7	125.7	618.2	744
1979	107.4	164.6	39.0	3.5	40.3	326.1	231.7	596.0	19.3	8.8	19.3	77.7	105.8	519.0	624.8
1980	109.7	113.3	34.7	6.3	39.7	303.7	140.3	468.8	23.7	8.2	18.8	77.5	104.5	364.3	468.8
1981	129.5	147.8	47.8	6.1	19.5	350.6	195.9	581.9	17.8	4.9	19.1	75.2	99.2	425.6	524.8
1982	127.0	170.8	38.2	4.0	10.4	350.3	203.7	557.0	47.2						
1983[1]	123.0	162.8	31.5	4.6	9.1	331.0	276.5	613.2	48.6						
1984[1]	115.0	175.0	34.6	6.3	—	330.8	257.2	611.7	26.4						

[1] Preliminary. [2] Residual. *Source: Agricultural Marketing Service, U.S.D.A.* T.422

U.S. Annual Average Prices of Molasses, by Types (F.O.B. Tank Car or Truck) In Dollars Per Ton[1]

	Blackstrap						Beet Molasses			Citrus Molasses
Year	New Orleans	South Florida	Baltimore	Minneapolis	Omaha	Calif. Ports	Colorado	Wyo. & Montana	Ore., Utah & Idaho	Florida
1977	40.55	42.52	47.08	54.62	58.84	42.96	41.76	45.41	55.10	50.65
1978	51.50	52.40	59.25	67.30	72.55	54.00	60.40	58.35	60.95	61.05
1979	82.95	85.50	91.20	107.90	107.75	84.05	85.30	82.65	N.A.	79.40
1980	96.50	96.80	106.75	124.45	128.85	101.70	95.60	96.55	N.A.	103.65
1981[2]	84.90	90.00	99.30	111.20	119.40	89.20	85.30	95.20	N.A.	103.10

[1] Per ton prices are based on 171 gallons for blackstrap, beet and corn molasses and on 175 gallons for citrus molasses. Prices represent sales F.O.B. terminal to the general feed trade and do not include sales made under various pricing arrangements above or below prices generally available to the ultimate user. Ton—2,000 lbs. Gallon—U.S. gallon. Prices are now rounded off to the nearest 5 cents. [2] Preliminary. *Source: Molasses Market News, Annual Summary, AMS, U.S.D.A. Denver Colorado, and Molasses Market News, Weekly, various issues* T.423



Wholesale Price of Blackstrap Molasses (Cane) at New Orleans In Dollars Per Ton

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1973	43.20	48.90	53.40	55.20	56.40	57.00	57.00	60.10	60.80	64.20	65.50	67.75	57.45
1974	68.80	70.50	71.00	72.00	69.50	68.00	68.00	69.25	70.40	67.00	64.00	62.00	68.37
1975	60.00	57.75	51.30	50.00	46.00	43.00	41.00	39.00	38.00	36.00	37.00	46.00	45.42
1976	53.00	54.00	53.00	52.00	45.00	47.00	48.00	54.00	59.00	57.00	52.00	51.00	52.08
1977	51.00	51.00	48.00	42.00	40.00	38.00	36.00	36.00	36.00	36.00	36.00	38.00	40.67
1978	40.00	40.00	40.00	41.00	42.00	46.00	48.00	48.00	56.00	65.00	73.00	73.00	51.08
1979	79.00	79.00	79.00	79.00	81.00	83.00	83.00	85.00	87.00	87.00	87.00	87.00	83.00
1980	89.90	91.50	92.00	92.00	92.00	92.00	92.00	92.00	94.40	103.50	111.60	113.00	96.40
1981	116.75	118.00	115.00	103.00	95.50	88.00	83.00	71.60	67.50	58.75	52.00	50.00	76.30
1982	50.00	50.00	50.00	50.00	50.00	50.00	50.00	48.00	48.00	44.00	40.00	41.00	47.60
1983	44.00	45.00	45.00	45.00	47.50	49.40	53.75	61.50	68.75	72.50	72.50	72.50	56.45
1984	72.50	72.50	72.50	72.50	70.70	68.75	59.00	50.00	50.00	50.00	50.00	50.10	61.55
1985	50.00	50.00	50.00	50.00	50.00	47.75	41.00	41.90	48.00	53.75	57.50	63.50	50.28
1986	65.00	65.60	68.50										

Source: Economics Service, U.S.D.A. T.424

Molybdenum

Worldwide mine production of molybdenum in 1985 was an estimated 210 million pounds, a fraction of a percentage point higher than in 1984. About half of that total was extracted in the U.S., followed by Chile with about 17 percent; the centrally planned economies, including the Soviet Union and People's Republic of China, were thought as a group to have accounted for another one-sixth of global output. Identified resources at the end of 1985 amounted to approximately 46 billion pounds in the world as a whole, of which 19 billion (41 percent) were housed in the United States. The global reserve base was calculated at nearly 26 billion pounds, with the U.S. holding nearly half that amount.

Production of molybdenum in the U.S. during 1985 came to nearly 102 million pounds, according to the U.S. Bureau of Mines. Eleven firms were actively engaged in production of the mineral. Three of the firms mined molybdenum ore, while the other eight recovered the resource as a by-product or co-product of copper, tungsten and uranium ore. Thirty percent of total domestic output was exported, but exports were partially offset by an estimated 9 million pounds of imported molybdenum. Of the 74 million pounds of domestic production that remained at home, only about 31 million were actually consumed, the bulk of that by makers of iron and steel. Consequently, stocks above-ground were substantial, amounting at 1985's end to 15 million pounds of mine and mill concentrate, up 20 percent from the year before, and 30 million pounds in forms usable by producers or consumers, up over 15 percent from 1984. In other words, year-end stocks were adequate to satisfy one-and-a-half years' consumption at 1985's rate of usage.

These figures make plain that the molybdenum industry suffered in 1985 from a case of acute oversupply. It was not the first time. Between 1981 and 1985 similar circumstances were the principal cause for a decline in the mine and mill labor force of almost 60 percent. The rate of annual consumption of molybdenum fell during the same period by 40 percent. And the average value of a pound of concentrate, which had been $8.50 in 1981, had fallen to $3.15 in 1985, a skid of 63 percent.

The root of the problem for the molybdenum's industry is the shrinking scale of operation of the U.S.'s iron and steel industry, molybdenum's principal consumer. Few observers believe there is any likelihood that iron and steel in the U.S. will ever return to its pre-eminence in the 1940s and 1950s. Barring that slim possibility and barring early development of other large applications for molybdenum, the latter industry will continue to languish. Although the U.S. Bureau of Mines projects an average annual increase in demand for molybdenum of 0.8 percent through 1990, on a 1983 base, it also forecasts continued oversupply of the product. As a result, many observers—including some within the industry—speculate openly that several, perhaps most, of the major U.S. producers will be forced to quit the industry in the near future.

World Mine Production of Molybdenum In 1,000 Pounds (Contained Molybdenum)

Year	Bulgaria	Canada[3]	Chile	China	Japan	Mexico	Mongolia	Niger	Peru	Philippines	South-Korea	United States	USSR	World Total
1977	330	36,526	24,112	3,300	401	2			1,005	—	223	122,408	21,400	209,707
1978	330	30,739	29,092	4,440	163	24			1,607	121	485	131,843	21,800	220,604
1979	330	24,634	29,895	4,400	154	105			2,637	311	417	143,967	22,500	229,350
1980	330	26,892	30,133	4,400	123	163	1,070	269	5,926	201	661	150,686	22,900	243,754
1981	330	28,338	33,863	4,400	163	994	1,460	249	5,485	207	1,023	139,900	23,600	240,012
1982	330	36,288	44,198	4,400	214	11,442	1,830	93	6,378	150	796	84,381	24,300	214,800
1983[1]	330	22,474	33,651	4,400	214	12,932	2,120	88	5,794	86	313	33,593	24,300	140,295
1984[2]	330	24,174	37,172	4,400	265	4,740	2,200	N.A.	6,800	—	220	103,664	24,700	208,665
1985[2]		15,000	35,000			9,000			10,000			101,844		209,500

[1] Preliminary. [2] Estimate. [3] Shipments. *Source: Bureau of Mines* T.425

U.S. Salient Statistics of Molybdenum In Thous. of Pounds (of Contained Molybdenum)

	Concentrate							Primary Products[3]							
		Shipments						Net Production				Shipments			
Year	Production	Total (Includes Exports)	Value Mill. $	For Exports	Consumption	Imports for Consumption	Stocks Dec. 31[2]	Grand Total	Molybdic Oxide[4]	Molybdenum Metal Powder	Sodium Molybdate	To Domestic Destinations	For Exports	Consumption	Producers Stocks Dec. 31
1977	122,408	124,974	450.4	29,666	91,041	1,976	9,161	90,520	68,671	4,142	1,275	100,626	33,332	54,557	10,141
1978	131,843	130,694	608.0	31,183	96,375	2,705	8,980	96,052	83,220	4,194	1,489	105,921	35,353	61,091	7,996
1979	143,967	143,504	871.1	36,405	103,152	2,329	9,520	101,752	79,035	4,946	1,541	109,419	35,773	60,388	8,502
1980	150,686	149,311	1,344	35,026	108,206	1,825	18,101	106,284	84,554	4,904	1,142	95,391	35,557	53,265	27,007
1981	139,900	118,916	945.5	32,735	80,725	1,988	35,043	105,824	59,645	3,513	96	64,368	20,004	50,189	44,961
1982	84,381	76,135	504.1	21,870	49,444	3,115	38,510	65,381	35,354	3,304	121	47,884	23,375	27,665	49,402
1983	33,593	48,805	166.6	18,979	27,014	1,673	11,637	37,533	11,148	3,667	191	50,562	19,877	27,225	28,352
1984[1]	103,664	102,405	326.8	41,687	54,843	28	12,450	79,689	40,186	4,302	N.A.	65,528	24,553	34,792	22,155
1985[5]	101,844	104,769		30,835	50,000	112	13,614	87,436	48,000			73,000			21,000

[1] Preliminary. [2] At mines & at plants making molybdenum products. [3] Comprises ferromolybdenum, molybdic oxide, & molybdenum salts & metal. [4] Includes molybdic oxide briquets, molybdic acid, & molybdenum trioxide. [5] Estimate. *Source: Bureau of Mines* T.426

Nickel

The world's mines in 1985 yielded nickel content estimated by volume at 821,000 short tons, which was a small fraction more than 1984's total output. About 80 percent of the world's nickel resources are in laterites, the remainder in sulfide deposits. The largest single producing country in 1985 was the U.S.S.R. with 24 percent of global production. Canada followed closely with 23.8 percent. Australia was a distant third with just under 10 percent. The world's reserve base is currently estimated at 111 million short tons, of wich 25 million (23 percent) are in Cuba, 17 million (15 percent) in Indonesia, and almost 15 million (14 percent) in Canada.

Mining output in the U.S. in 1985 came to 6,900 short tons, less than half as much (48 percent) as was mined in 1984. Refined output was also smaller in volume than in 1984, dropping more than 22 percent. Imports, which for some years have been the principal component of domestic supply, also declined in 1985, falling about 10 percent from the year earlier. Looked at a little differently, total domestic supply of nickel (mining output plus refinery output plus imports) amounted in 1985 to an estimated 256,000 short tons, compared with about 296,000 in 1984. That works out to a reduction of just under 14 percent.

Apparent consumption also fell in 1985 from its rate in 1984, sliding about 15 percent to a total tentatively put at 185,000 tons. U.S. exports of nickel, which at 28,000 tons were fewer than 18 percent of U.S. imports, were virtually unchanged between 1984 and 1985. The chief domestic consumers of primary nickel are producers of stainless and alloy steels (42 percent of total production), non-ferrous alloys (36 percent), and electroplating (18 percent). The major ultimate end-users are: transportation, 23 percent of output; chemicals manufacturing, 15 percent; electrical equipment, 12 percent; and construction, 10 percent.

With both domestic supply and demand down from year-earlier figures, the price (cathode) charged by New York dealers was little changed in 1985, rising only 6 cents from its level in 1984. Similarly, there was minimal change, year-over-year, either in the size of consumers' and producers' year-end stocks or in the size of the mining, smelting and refining labor forces.

Based on the presumption of increased vitality in the American economy, early forecasts held that domestic mining output and domestic consumption of nickel would return in 1986 to their 1984 rates of 14,500 tons and 218,000 tons, respectively. That would represent a 100-percent jump in mining production, an 18-percent gain in consumption. Prices, however, were not expected to rise nearly enough to permit development of domestic nickel deposits, which contain comparatively low concentrations of the metal.

World Mine Production of Nickel In Thousands of Short Tons of Contained Nickel

Year	Australia[3]	Botswana	Brazil	Canada	Cuba	Domin. Repub.	Finland[3]	Greece	Indonesia	N. Caledonia	Philippines	South Africa	United States	USSR	Zimbabwe	World Trade
1978	90.8	17.7	4.0	141.4	36.7	15.8	7.9	20.4	34.6	71.8	32.5	31.6	13.5	164.0	17.3	725.4
1979	76.8	17.8	3.3	139.4	34.3	27.7	6.4	22.2	41.1	88.2	36.7	33.3	15.1	166.0	16.1	756.5
1980	81.9	17.0	2.5	203.7	40.3	18.0	7.2	16.8	58.7	95.5	51.9	28.3	14.7	170.0	16.6	858.9
1981	82.0	18.2	2.6	176.6	42.5	20.6	7.6	17.2	53.8	86.1	32.2	29.1	12.1	174.0	14.4	804.7
1982	96.5	19.6	5.3	97.8	39.8	5.8	6.9	5.5	50.6	66.3	22.2	24.3	3.2	182.0	14.7	674.6
1983[1]	84.5	20.1	11.8	134.3	41.5	23.4	5.4	18.5	54.4	43.5	17.5	22.6	—	187.0	11.2	723.5
1984[2]	82.9	19.3	12.1	192.0	35.1	26.7	5.5	18.4	68.9	45.2	18.3	27.6	14.5	192.0	11.1	819.9
1985[2]	81.0	19.0	12.0	195.0	40.0	27.0	6.0	16.0	70.0	44.0	25.0	27.0	6.9	197.0	11.0	821.0

[1] Preliminary. [2] Estimate. [3] Content of nickel sulfate and concentrates. *Source: Bureau of Mines* T.427

Salient Statistics of Nickel in the United States In Short Tons

		Production		Nickel Consumed[1], By Uses									Stocks, Dec. 31		Nickel & Pdt's (Gross Weight)		
Year	Net Import Reliance as a % of Apparent Consumption	Plant[5]	Secondary[4]	Alloy Steels	Cast Irons	Copper Base Alloys	Electroplating Anodes	Nickel Alloys	Stainless & Heat Resisting Steels	Super Alloys	Chemicals	Total All	At Consumers' Plants	At Producer Plants	Imports	Exports	Avg. N.Y. Price Free Mkt. $ Lb.
1978	80	36,298	44,182	17.2	4.3	7.0	27.3	39.6	60.5	15.7	1.9	180,723	20,443		234,352	36,293	
1979	75	44,181	57,404	20.2	4.7	8.5	28.5	41.1	69.6	17.6	1.2	196,293	19,518	28,500	177,205	50,810	
1980	76	44,225	49,291	16.9	4.0	8.8	18.8	27.4	54.7	19.2	1.5	156,299	15,231	60,000	189,188	56,675	2.85
1981	75	48,805	52,076	16.5	3.7	10.6	22.3	10.6	50.6	13.5	2.0	144,851	22,508	100,000	209,008	46,836	2.65
1982	76	44,956	42,968	10.0	1.9	4.3	20.9	17.9	32.2	11.0	2.0	103,981	18,853	62,000	129,787	57,029	2.24
1983	75	33,400	49,852	9.8	1.1	6.3	22.6	24.9	47.0	11.5	2.0	127,845	20,448	38,500	152,333	43,913	2.20
1984[2]	68	44,933	59,286	11.9	1.5	6.7	24.8	29.4	45.8	12.9	2.2	136,861	20,934	37,300	176,715	50,645	2.22
1985[3]	68	34,800	55,000	14.1	1.4	7.0	49.7	36.5	71.0	22.0	2.5	215,410	21,000	38,000	159,000	37,800	2.28

[1] Exclusive of scrap. [2] Preliminary. [3] Estimate. [4] From purchased scrap (ferrous & nonferrous). [5] Smelter & refinery. *Source: Bureau of Mines* T.428

Oats

U.S. production of oats in 1985 was placed by USDA in March 1986 at 519 million bushels, up 9 percent from year-ago production. The increase in production was due to record-high yields, which were estimated by USDA in February at an average 63.6 bushels per acre compared with the previous record set last year of 58 bushels per acre . Yields in North Dakota benefited from early cool weather and adequate moisture in most areas. Favorable growing weather pushed yields in Iowa and Minnesota to record highs.

Harvested acreage of oats decreased fractionally from 1984, and was 10 percent below area harvested in 1983.

With beginning stocks estimated at 180 million bushels and imports expected at 25 million, total supply will grow to 724 million bushels in 1985–86 compared with 689 million a year ago. Although the U.S. is expected to remain a net importer of oats, imports are expected to decline to 24 million bushels from last year's 35 million figure. The decline in imports is attributed to both the reduced value of the U.S. dollar and the drop in oat prices.

Meanwhile, feed use was expected to increase to 475 million bushels from 433 million last season, resulting in a rise in total use to 555 million bushels in 1985–86. Last season, total use was put at 508 million bushels. This increase in use would pare 1985–86 ending stocks to 167 million bushels from 180 a year ago.

U.S. oats stocks in all positions, as of January 1, 1986, totaled 379 million bushels, up from 358 million on January 1, 1985. On-farm stocks were 310 million bushels, with the majority of those stocks located in South Dakota, Minnesota, North Dakota, Wisconsin and Iowa.

USDA's 1986 prospective plantings report as of March 1 projected oat acreage at 14.4 million, up 9 percent from acreage planted in 1985. Acreage in Iowa was expected to increase 25 percent to 2.0 million acres, and Minnesota acreage was projected to rise 35 percent to 2.1 million.

The average farm price to producers in the 1985–86 crop year was estimated by USDA in March at $1.15 to $1.35 per bushel, compared with last season's average of $1.69. USDA estimates that only 15 percent of eligible producers enrolled in the crop program for oats, however, so total deficiency payments and loan activity should not amount to much.

U.S. Government Price Support

The national average loan rate for oats in 1985 was $1.31 per bushel, and the target price remained at $1.60. The deficiency payment rate was the maximum 29 cents per bushel. For the 1986 crop, the loan rate is at 99 cents per bushel, with the target price remaining at $1.60. USDA's projected deficiency payment is 45 cents, with payments subject to a 4.3 percent reduction under the Gramm-Rudman-Hollings Act.

Futures Markets

Oat futures are traded on the Chicago Board of Trade and on the Winnipeg Commodity Exchange.

World Production of Oats In Thousands of Metric Tons

Crop Year	Argentina	Australia	Canada	China	Denmark	France	Netherlands	Poland	Spain	Sweden	Turkey	United States	USSR	Un. King.	W. Germany	World Total
1975–6	433	1,141	4,466		367	1,948	158	2,920	609	1,345	390	9,551	12,495	795	3,445	47,044
1976–7	530	1,073	4,831		256	1,402	103	2,695	505	1,251	400	7,930	18,113	764	2,497	48,744
1977–8	570	991	4,303	1,515	288	1,928	94	2,561	421	1,416	370	10,901	18,407	790	2,714	51,508
1978–9	676	1,763	3,621	1,500	206	2,203	140	2,492	553	1,550	370	8,730	18,507	706	4,049	51,753
1979–0	522	1,411	2,978	1,600	163	1,845	109	2,186	456	1,524	370	7,643	15,200	542	3,697	45,165
1980–1	433	1,128	3,028	1,800	160	1,927	94	2,245	680	1,567	355	6,652	15,544	601	3,249	44,543
1981–2	339	1,617	3,188	1,700	176	1,774	115	2,731	445	1,816	325	7,391	15,000	620	3,200	45,343
1982–3	637	829	3,684	1,680	178	1,802	136	2,608	443	1,663	330	8,602	15,500	575	3,777	48,385
1983–4[1]	538	2,363	2,773	1,650	83	1,469	61	2,376	470	1,268	310	6,923	17,500	460	2,489	45,757
1984–5[2]												6,875				

[1] Preliminary. [2] Estimated. *Source: Foreign Agricultural Service, U.S.D.A.* T.434

United States Official Oat Crop Production Reports In Thousands of Bushels

Year	July 1	Aug. 1	Sept. 1	Dec.	Final	Year	July 1	Aug. 1	Sept. 1	Dec.	Final
1978	635,551	636,785	595,879	601,477	581,657	1982	580,288	591,478	599,008	616,981	620,509
1979	509,761	530,967	531,232	534,386	526,551	1983	519,002	504,201	472,541	477,303	476,961
1980	449,504	440,655	450,660	457,593	458,263	1984	454,747	455,190	472,460	471,921	473,661
1981	528,118	522,408	509,457	508,083	509,167	1985	498,953	519,028	537,443	518,626	

Source: Crop Reporting Board, U.S.D.A. T.431

OATS

Production of Oats in the United States, by States In Millions of Bushels

Year	Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Nebraska	New York	No. Dakota	Ohio	Oregon	Pennsylvania	So. Dakota	Texas	Wisconsin	California
1979	15.6	6.4	63.0	18.9	84.9	2.0	21.2	18.0	37.0	20.3	4.0	18.4	94.4	16.8	55.9	4.1
1980	14.0	5.9	62.0	20.1	82.7	2.0	15.6	17.9	13.5	19.4	4.1	19.0	66.0	12.6	58.7	4.3
1981	13.5	5.5	59.5	21.1	90.1	4.6	15.8	17.9	44.2	17.0	4.6	20.0	70.5	18.9	52.6	3.6
1982	11.8	6.7	54.2	28.4	97.9	3.3	26.7	18.2	55.7	23.5	6.4	19.8	123.5	10.7	49.3	3.4
1983	12.6	4.6	38.3	15.6	77.0	2.5	13.6	11.4	63.6	15.4	6.0	16.2	79.2	24.0	45.1	2.9
1984	11.4	5.0	47.4	21.7	78.0	1.6	15.7	10.6	50.0	13.9	6.6	16.0	86.8	8.8	53.3	3.5
1985[1]	12.5	7.6	57.8	26.1	77.0	5.8	22.8	17.7	44.5	26.4	9.2	21.0	79.5	15.0	51.5	3.0

[1] Preliminary, December estimate *Source: Crop Reporting Board, U.S.D.A.*

T.437

Oats Supply and Utilization in the United States

Year June–May	Acreage Planted	Acreage Harvested	Yield	Production	Total supply[2]	Feed & residual	Other domestic use	Exports	Total use	Ending stocks	Farm price[3]	Nat. avg supp. rate
	—Mil. acres—		Bu/acre	—Mil. bu—							—$/bu.—	
1980/81	13.4	8.7	53.0	459	696	432	74	13	520	177	1.79	1.16
1981/82	13.6	9.4	54.2	510	688	453	76	7	536	152	1.89	1.24
1982/83	14.0	10.3	57.8	593	748	441	85	3	529	220	1.49	1.31
1983/84	20.3	9.1	52.6	477	727	466	78	2	546	181	1.67	1.36
1984/85	12.4	8.2	58.0	474	689	433	80	1	509	180	1.69	1.31
1985/86[1]	13.3	8.1	63.6	519	724	475	74	2	557	167	1.30	1.31

[1] Preliminary. *Source: Economic Research Service, U.S.D.A.*

T.430

Quarterly Supply and Distribution of Oats in the United States In Millions of Bushels

Year & Periods Begin. June 1	Supply				Disappearance							Stocks		
					Domestic Use									
	Beginning Stocks	Production	Imports	Total Supply	Food	Alc. Bever.	Seed	Feed	Total	Ex-, ports	Total Disap.	Gov't Owned[2]	Privately Owned[3]	Total Stocks
1982–3	151.9	592.6	3.9	748.4	41.7	—	43.3	440.6	525.6	3.0	528.6	.7	219.1	219.8
June–Sept.	151.9	592.6	.8	745.3	16.2	—	2.0	167.7	185.9	1.3	187.2	.6	557.5	558.1
Oct.–Dec.	558.1	—	.2	558.3	10.0	—	2.0	92.0	104.0	1.0	105.0	.7	452.6	453.3
Jan.–Mar.	453.3	—	1.6	454.9	10.7	—	7.6	117.3	135.6	.3	135.9	.7	318.3	319.0
Apr.–May	319.0	—	1.3	320.3	4.8	—	31.7	63.6	100.1	.4	100.5	.7	219.1	219.8
1983–4	219.8	477.0	30.1	726.9	40.9	—	36.6	466.2	543.7	2.1	545.8	1.5	179.6	181.1
June–Sept.	219.8	477.0	11.7	708.5	15.8	—	1.9	184.8	202.5	.8	203.3	1.1	504.1	505.2
Oct.–Dec.	505.2	—	4.9	510.1	9.9	—	1.9	118.8	130.6	.7	131.3	1.4	377.4	378.8
Jan.–Mar.	378.8	—	10.6	389.4	10.5	—	7.4	101.2	119.1	.3	119.4	1.5	268.5	270.0
Apr.–May	270.0	—	2.9	272.9	4.7	—	25.4	61.4	91.5	.3	91.8	1.5	179.6	181.1
1984–5[1]	181.1	473.7	34.0	688.8	41.0	—	33.2	433.4	507.6	1.3	508.9	1.6	178.3	179.9
June–Sept.	181.1	473.7	5.8	660.6	15.7	—	1.9	167.3	184.9	.6	185.5	1.5	473.6	475.1
Oct.–Dec.	475.1	—	9.1	484.2	10.0	—	5.3	110.5	125.8	.3	126.1	1.6	356.5	358.1
Jan.–Mar.	358.1	—	12.1	370.2	10.4	—	5.6	97.6	113.6	.2	113.8	1.5	254.9	256.4
Apr.–May	256.4	—	7.0	263.4	4.9	—	20.4	58.0	83.3	.2	83.5	1.6	178.3	179.9
1985–6[4]	179.9	518.6	25.0	723.5	—	80.0	—	475.0	550.0	1.6	556.6			166.9
June–Sept.	179.9	518.6	5.8	704.3	15.7	—	2.0	175.2	192.9	.4	193.3	1.8	509.2	511.0
Oct.–Dec.	511.0	—	6.2	517.2	10.0	—	5.0	123.1	138.1	.5	138.6			378.6
Jan.–Mar.														

[1] Preliminary. [2] Uncommitted inventory. [3] Includes quantity under loan & farmer-owned reserve. [4] Estimate. *Source: Economic Research Service, U.S.D.A.*

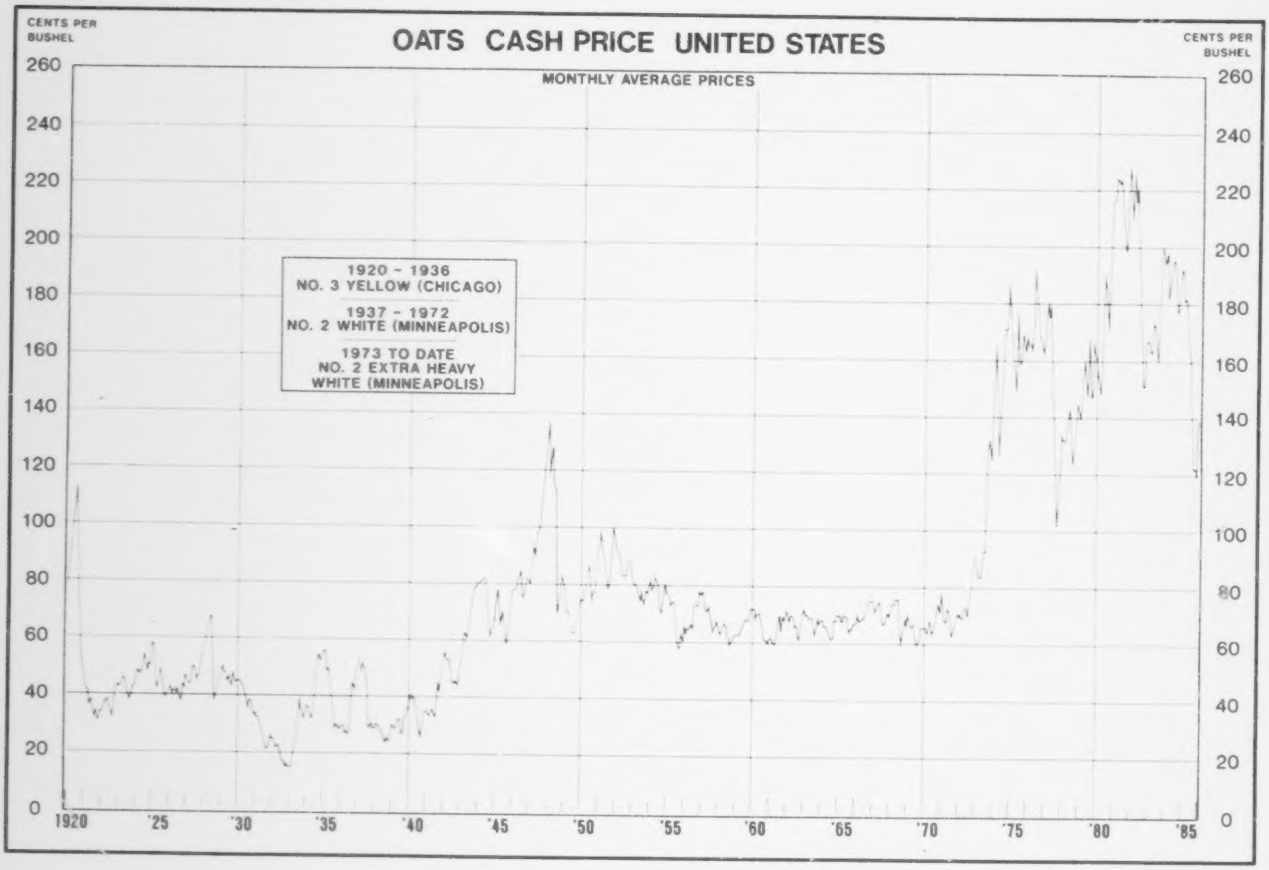
T.436

Volume of Trading in Oats Futures at Chicago Board of Trade In Millions of Bushels

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1978–9	103.8	121.3	120.0	149.0	141.0	67.7	59.3	93.9	51.6	95.4	87.1	135.7	1,225.3
1979–0	127.8	111.6	76.1	98.6	96.0	47.1	56.9	85.3	53.8	81.1	131.5	144.8	1,110.6
1980–1	200.4	183.9	199.6	197.1	167.9	151.0	124.8	170.2	129.2	136.4	120.5	162.2	1,943.2
1981–2	125.3	134.6	117.0	144.5	264.9	221.0	166.7	184.7	204.3	223.6	196.5	247.9	2,231.0
1982–3	221.0	218.9	151.2	113.2	127.6	82.5	121.1	154.0	141.3	213.6	159.1	159.7	1,863.2
1983–4	160.1	254.5	180.4	95.1	102.4	57.9	58.9	91.9	77.1	89.8	59.8	76.6	535.0
1984–5	64.7	88.7	38.5	41.0	48.8	39.5	46.1	38.1	33.7	33.7	30.9	31.2	
1985–6	42.6	55.6	37.2	57.0	53.9	35.2	54.7	41.7	41.9				

Source: Chicago Board of Trade

T.440



Average Cash Price[1] of No. 2 Heavy White Oats at Minneapolis In Cents Per Bushel

														— No. 2 Heavy —	
Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Average[1]	White, Portland	Toledo
1977–8	115	102	111	117	134	132	132	132	133	140	143	136	127	144	136
1978–9	124	128	136	139	147	140	147	154	160	148	155	168	143	179	137
1979–0	160	147	155	165	167	159	152	150	148	152	162	188	157	187	160
1980–1	190	170	186	196	215	216	220	225	223	221	223	218	204	242	217
1981–2	202	199	202	209	228	210	223	226	216	221	216	212	214	236	223
1982–3	187	153	151	151	167	167	167	163	163	173	171	167	169	218	155
1983–4	160	179	194	200	197	194	198	182	188	189	196	182	187	195	201
1984–5	184	177	179	184	192	187	181	182	179	173	165	169	181	212	192
1985–6[2]	144	123	124	119	132	139	137	130						174	112

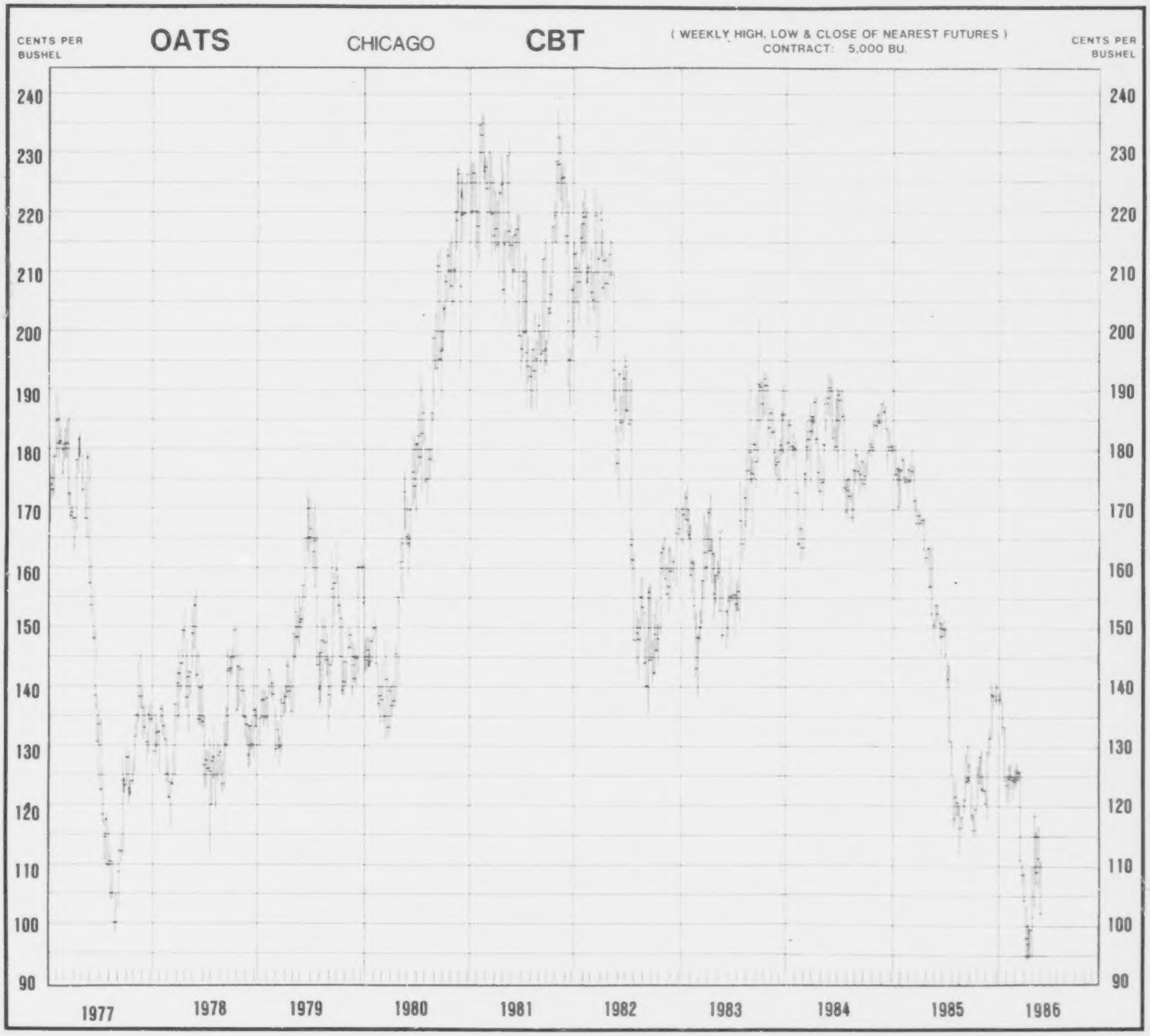
[1] Weighted average of reported daily cash sales. [2] Preliminary. *Source: Economic Research Service, U.S.D.A.* T.435

OATS

Month End Open Interest of Oats at the Chicago Board of Trade & Winnipeg Commodity Exchg.

	Chicago (In Millions of Bushels)												Winnipeg (In Contracts)			
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Mar.	June	Sept.	Dec.
1979	31.1	32.8	24.4	29.8	25.4	28.8	27.0	32.2	29.2	28.6	26.2	25.8	2,515	2,778	3,085	2,635
1980	23.8	23.2	17.5	23.2	21.2	25.8	35.3	41.3	41.6	39.5	37.6	27.6	2,827	2,315	3,178	3,598
1981	36.2	36.7	27.0	25.2	27.8	29.7	25.3	23.9	29.0	45.6	42.4	34.6	3,295	2,625	2,203	1,863
1982	36.5	39.6	40.5	40.5	43.4	45.8	43.4	32.6	30.5	31.4	23.7	21.5	1,298	1,185	1,155	1,225
1983	30.8	35.8	43.3	45.1	48.8	42.5	49.8	48.2	41.8	36.7	26.0	22.1	1,202	1,313	3,170	1,978
1984	21.8	24.3	23.7	21.5	21.0	21.5	24.2	23.1	23.3	22.4	20.8	18.7	1,529	3,127	3,551	1,073
1985	19.4	19.0	16.5	16.2	14.5	14.9	16.7	16.6	15.8	21.3	19.3	19.3	1,028	1,248	1,581	1,028
1986	18.5	18.7	20.8										421			

Source: Chicago Board of Trade & Winnipeg Commodity Exch. T-438



High, Low & Closing Prices of May Oats Futures at the Chicago Board of Trade In Cents per Bushel

Year of Delivery		Year Prior to Delivery								Delivery Year					Life of Delivery Range
		May	June	July	Aug	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	Mar.	Apr.	May	
1981	High	189	191	219½	217½	227	228	244½	244	232½	237	225¾	229½	232¼	244¼
	Low	181	179½	189	197½	207½	210	216½	210½	210½	212	206½	206	201	179½
	Close	183	189	212½	217	218	221	243½	226¾	216¼	224¼	223	213	224½	—
1982	High	231½	230	222½	217	194½	207	222½	212	209½	213¼	206	221¾	215	231½
	Low	226¼	212½	210	193	180½	185¼	197¾	177½	193¾	191½	186	202¾	200¼	177½
	Close	229¼	215	216	194½	185¾	205¾	206	200¼	207¾	199	203¼	208	207	—
1983	High	196	185	182½	177½	175	172¼	184½	179¾	181¼	175½	169	172½	163½	196
	Low	188½	173½	164	158½	163½	161	165½	172	172¼	149	151	151¾	154	149
	Close	189	176½	167¾	171	170¼	164	177½	174½	174½	149¼	160¼	155¾	157¼	—
1984	High	185	183½	200	226	220	206	199½	192¼	188	181½	185½	189¼	193	226
	Low	179½	177	181	189½	199¼	193	184½	180½	178	163	169	169¾	171½	163
	Close	179½	181½	197½	200	206	193	184½	188¾	180	168¾	185½	171	193	—
1985	High	—	191	185¾	181½	175	179¾	180¾	179¾	177½	174½	173¼	170	164	191
	Low	—	181	175	171	171	173	176	172½	169¼	167½	167¼	160¼	156¾	156¾
	Close	—	190	178½	172¼	173½	179	179	176¾	172¼	170¼	167¾	160½	160½	—
1986	High	163	161	150½	135	135¾	138¾	141¾	143½	142	129	122½			
	Low	160	149¾	133½	127½	128	130½	134¾	133½	121½	118	106¾			
	Close	161	150¾	133¾	130	135	138½	135¼	142¼	124¼	120	108¼			

Source: Chicago Board of Trade T.439

Average Price Received by U.S. Farmers for Oats In Cents Per Bushel

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Average[1]
1979–0	133	124	129	131	141	131	139	137	134	138	143	148	136
1980–1	150	153	163	165	184	192	198	201	208	205	205	199	179
1981–2	184	172	174	178	188	194	197	199	202	199	199	188	189
1982–3	157	139	135	132	140	144	146	148	149	154	154	151	149
1983–4	146	145	155	162	167	173	181	188	181	182	184	180	167
1984–5	168	162	160	169	164	172	174	169	168	168	160	159	169
1985–6	131	116	110	108	114	120	118	117					

[1] Weighted average by sales. *Source: Crop Reporting Board, U.S.D.A.* T.433

Oats Under Price Support Through the End of the Month (Cumulative Total from Current Season's Crop) In Millions of Bushels

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1977–8	7.8	30.0	48.5	54.9	59.5	62.3	65.3	67.1	73.2	76.1	77.9	78.9	78.9
1978–9	.5	8.2	14.9	18.5	21.2	22.4	23.9	24.2	24.5	24.7	24.8	24.8	24.8
1979–0	—	2.2	5.0	7.1	8.7	9.5	10.5	11.0	11.6	12.1	12.2	12.2	12.2
1980–1	—	1.8	3.4	4.4	4.9	5.7	6.0	6.1	6.2	6.3	6.3	6.3	6.3
1981–2	.6	3.4	6.1	7.4	8.0	8.7	9.3	9.5	9.6	9.6	9.6	9.6	9.6
1982–3	.1	1.2	4.0	5.8	6.9	7.7	8.3	8.5	8.8	9.0	9.1	9.1	9.1
1983–4	.1	1.0	1.4	2.8	3.1	3.2	3.4	3.5	3.5	3.6	3.6	3.6	3.6
1984–5	—	.9	2.1	2.6	2.8	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1
1985–6	.1	1.0	2.3	3.5	4.0	4.3	4.6						

Source: U.S. Department of Agriculture T.432

Olive Oil

World olive oil production in 1985/86 was expected by the USDA to drop by about 24 percent to around 1.24 million tonnes, partly reflecting the "off-year" in the production cycle in some major producing countries. Also contributing to reduced production was freeze damage to trees in January 1985. Due to the freeze, Italy's 1985/86 production was expected to drop sharply, to around 400,000 tonnes from average production of about 600,000 tonnes. Nevertheless, Italy was expected to be the world's largest olive oil producer in 1985/86, followed by Spain, Greece and Tunisia. Olive harvesting begins in mid-November in the northern areas of the Mediterranean and somewhat later in the southern areas, with most of the crop harvested by March.

According to the USDA, world demand for olive oil in 1985/86 was expected to be strong, although below the record level reached in 1984/85. Nonetheless, the USDA forecast 1985/86 world consumption at 1.63 million tonnes, off from a preliminary estimate of 1.80 million tonnes in 1984/85. The European Community (EC) with its new members, Portugal and Spain, now produces about 80 percent of the world's olive oil, and unless it changes its subsidy policies for olive growers, surplus olive oil stocks could mount significantly. EC pricing policies with respect to olive oil have made that oil less competitive with rapeseed oil, sunflowerseed oil and soybean oil—a development which is expected to curb consumption in the Community.

Italy is by far the world's largest consumer and importer of olive oil, requiring oil from Tunisia and Turkey to supplement its own production. Italy also exports olive oil. More than one-half the olive oil sold in the United States is imported from Italy. U.S. consumption is expected to increase in 1985/86 as more oil is sold in gourmet stores in addition to usual ethnic markets.

World stocks of olive oil were expected to drop to about 300,000 tonnes, the lowest level since 1973. About one-half of these stocks are expected to be held in Spain, which produces far more olive oil than its domestic needs.

World Production of Olive Oil (Pressed Oil)[2] In Thousands of Metric Tons

Crop Year[2]	Algeria	Greece	Italy	Jordan	Lebanon	Argentina	Morocco	Portugal	Spain	Syria	Tunisia	Turkey	Libya	Israel	World Total
1972-3	15	249	340	6	7	28	21	48	440	33	70	154		2	1,422
1973-4	16	192	543	—	8	22	30	42	447	14	130	53		—	1,520
1974-5	8	237	433	7	14	19	26	48	333	44	117	110		—	1,414
1975-6	18	257	633	1	5	17	38	36	455	33	180	96		5	1,788
1976-7	15	224	301	5	12	12	30	36	390	56	85	150		—	1,334
1977-8	5	234	688	2	6	14	15	30	361	38	130	60		4	1,594
1978-9	14	240	419	7	6	15	20	40	500	66	83	160	5	0	1,590
1979-0	10	203	626	1	15	22	39	66	433	42	85	52	4	5	1,599
1980-1	18	321	606	10	2	11	23	32	479	83	145	170	8	2	1,921
1981-2	15	229	515	5	12	14	34	23	300	44	70	60	8	4	1,350
1982-3[1]	13	324	430	8	5	9	30	79	666	97	58	170	10	4	1,911
1983-4[3]	10	230	824	10	4	10	22	9	266	31	155	40	10	3	1,650
1984-5[3]	15	185	390	8	6	9	28	40	667	72	110	80	8	4	1,630
1985-6[3]		220	400					35	325	62	110	60			1,240

[1] Preliminary. [2] Total pressed oil in marketing year ending Oct. 31; excludes sulfur oil extracted from residues. [3] Forecast. *Source: Foreign Agricultural Service, U.S.D.A.*; Oil World. T.441

Average Unit Value of U.S. Olive Oil Imports In Thousand Dollars Per Metric Ton

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1984	1,336	1,313	1,301	1,307	1,424	1,357	1,379	1,342	1,438	1,361	1,397	1,284	1,353
1985	1,256	1,169	1,215	1,235	1,256	1,249	1,251	1,257	1,308	1,333	1,292	1,338	1,263
1986	1,402												

Source: U.S. Bureau of the Census

World Olive Oil Supply and Distribution In Thousands of Metric Tons

Crop Year	Production	Exports	Imports	Consumption	Ending Stocks
1980-1	1,921	267	260	1,663	864
1981-2	1,337	204	296	1,593	700
1982-3	1,911	356	401	1,649	1,007
1983-4	1,656	302	340	1,857	844
1984-5[1]	1,637	436	433	1,812	666
1985-6[2]	1,306	356	372	1,634	354

[1] Preliminary. [2] Forecast. *Source: Foreign Agricultural Service, U.S.D.A.*

Onions

Salient Statistics of Onions in the United States

Crop Year	Stocks—Jan. 1 (1,000 Cwt.) Common Storage	Cold Storage	Total Stocks	Acres Harvested	Yield Per Acre	Production	Price Per Cwt.	Farm Value	Domestic Exports[3]	Imports[3]	Per Capita[2] Consumption Farm Weight (Lbs.)	Frozen
				Acres	Cwt.	1,000 Cwt.	Dollars	$1,000	1,000 Cwt.			
1979	6,556	66	6,622	123,910	312	38,602	6.98	237,432	1,851	1,304	9.8	.74
1980	7,752	99	7,851		296	33,476	11.40	346,539	2,614	1,400	9.9	.68
1981	6,235	78	6,313		314	35,021	14.70	475,395	3,822	1,581	9.3	.7
1982	5,560	35	5,595	125,040	332	41,637	8.25	306,371	1,367	1,861	11.6	.8
1983		29		123,040	315	38,762	12.40	431,906	2,056	2,791	11.8	.6
1984[1]		23		129,350	338	43,657	10.70	423,880			12.2	.7
1985[1]		27		122,320	354	43,317	8.78	345,837				

[1] Preliminary. [2] Onions & shallots. Includes 0.1 lbs. of shallots in each year. [3] Year beginning July. *Source: Economic Research Service, U.S.D.A.* T.443

Production of Onions in the United States In Thousands of Hundredweight (Cwt.)

Year	Spring Texas	California	Arizona	Total (All)	Summer New Mexico	Texas	California	Colorado	Idaho	Michigan	Minnesota	New York	Oregon	Total (All)	Grand Total
1980	3,569	1,683	623	5,875	1,131	1,764	6,000	2,460	2,453	1,800	201	4,433	4,538	27,601	33,476
1981	2,700	2,160	512	5,372	1,242	1,488	7,025	2,925	2,625	2,446	199	3,933	4,460	29,649	35,021
1982	3,492	2,805	876	7,173	1,643	1,544	10,395	3,255	2,475	2,336	168	4,550	4,821	34,464	41,637
1983	3,800	2,166	656	6,622	1,248	1,643	9,179	3,432	2,475	2,573	158	2,793	5,292	32,140	38,762
1984	3,348	2,734	805	6,887	1,365	1,560	9,819	4,636	2,323	2,933	156	3,384	6,785	36,770	43,657
1985[1]	3,230	3,510	564	7,304	1,463	943	8,870	4,380	3,740	2,975	180	3,762	6,715	36,013	43,317
1986[1]	4,800														

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.444

Cold Storage Stocks of Fresh Onions in the United States In Thousands of Pounds

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1980	9,913	8,446	6,430	4,070	1,124	442	1,967	954	1,298	2,089	2,265	4,901
1981	7,777	6,972	4,422	3,730	1,247	591	1,828	649	143	719	665	3,219
1982	3,474	3,963	3,319	1,813	—	—	275	—	—	952	—	—
1983	4,183	4,407	4,116	2,988	1,042	235	325	724	385	785	1,348	8,826
1984	8,648	7,006	2,527	343	1,230	556	527	1,212	5,270	5,618	5,354	6,949
1985	7,465	5,518	4,454	2,248	810	4,806	2,804	1,280	6,205	6,526	5,890	6,128
1986[1]	5,171	5,325	2,572	1,573								

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.445

Average Wholesale Price of Onions at Chicago[1] In Dollars Per Hundred Pounds (Cwt)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1980	7.75	7.04	6.75	9.00	20.00	20.50	14.63	13.50	13.50	12.67	11.25	14.70	12.61
1981	18.17	20.00	25.75	30.00	28.50	32.00	22.17	22.50	24.00	14.21	17.20	16.92	22.62
1982	21.44	19.79	16.88	17.00	18.25	17.92	13.25	16.00	11.25	10.00	9.50	8.29	14.96
1983	7.21	8.83	10.18	17.25	13.00	10.18	13.63	16.33	13.50	13.63	15.30	19.92	13.25
1984	20.00	24.20	27.13	29.81	15.19	15.00	19.00	18.50	14.80	12.06	12.58	12.54	18.40
1985	10.75	10.44	9.45	11.60	14.63	16.00	38.00	17.14	11.36	10.14	9.25	10.50	14.11

[1] All yellow, all varieties, fair to good quality, all sizes & field run, track and street sales. *Source: Bureau of Labor Statistics* (0113–0216) T.447

Average Price Received by Farmers for Onions in the U.S. In Dollars Per Cwt.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average[2]
1980	4.50	4.20	5.30	6.83	9.86	10.70	9.20	10.40	11.30	10.90	11.50	14.20	11.40
1981	15.40	17.20	23.50	25.40	23.00	18.10	17.70	15.40	11.50	12.80	14.80	14.60	17.45
1982	18.40	18.10	13.40	12.40	13.10	9.43	11.90	12.60	7.83	7.12	6.90	6.35	11.46
1983	5.13	6.35	7.59	10.70	10.60	9.62	10.70	10.90	10.80	11.00	13.70	18.80	10.49
1984[1]	19.40	19.60	25.60	25.30	14.00	11.00	14.00	13.70	11.00	9.49	10.30	11.80	15.43
1985[1]	9.62	8.84	7.93	9.50	12.90	10.80	19.40	11.70	7.68	6.58	6.77	8.09	9.95
1986[1]	6.21	6.31	6.83	9.09									

[1] Preliminary. [2] Seasonal Average. *Source: Crop Reporting Board, U.S.D.A.* T.448

Orange Juice

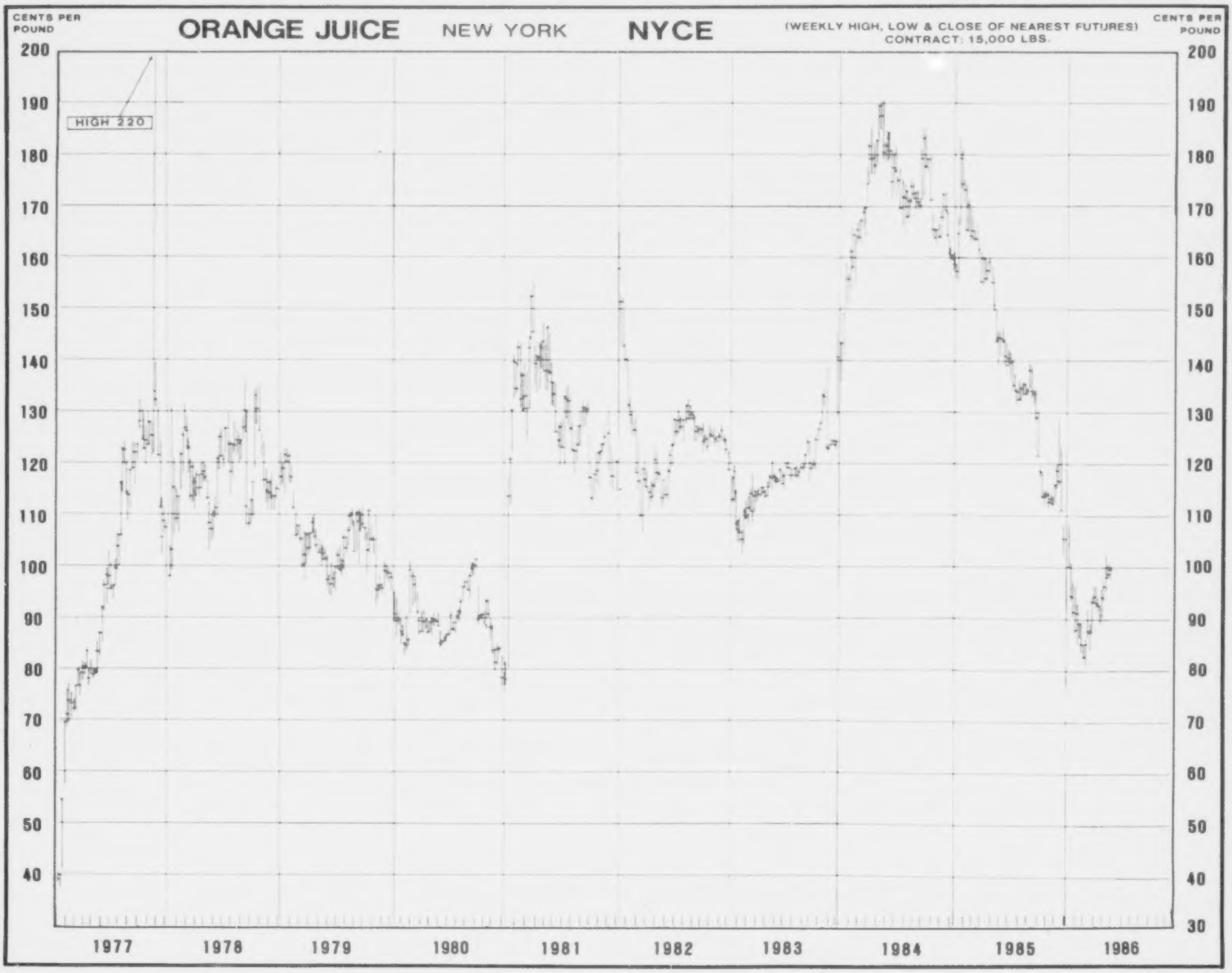
Damaged by sub-freezing temperatures in January 1985, the fourth such incident during the last five years, Florida's orange groves yielded 107.2 million boxes in the 1984/85 season, down 9.5 million boxes from the 1983/84 season. Partially offsetting the reduced size of crop, the frozen concentrated orange juice (FCOJ) yield rose in 1984/85 to 1.38 gallons per box from 1.29 gallons. The year-over-year decline in output of FCOJ was a modest 3.2 million gallons, putting total production for 1984/85 at 118.6 million gallons. The production shortfall was more than made up by imports, mostly from Brazil, and carry-in stocks.

As one would expect when supply is materially lowered, retail prices rose markedly during the 1984/85 season, averaging about 66 cents per six-ounce can or roughly 9 percent higher than in the prior season. Despite this price boost, demand for FCOJ remained at a high level: retail gallonage sales fell only 7 percent to a total of 426 million gallons.

The outlook for FCOJ in 1985/86 was much brighter than it was a year earlier. USDA in March projected that production of round and Temple oranges would come to 128.0 million boxes, almost 20 percent greater than in 1984/85. The FCOJ yield per box was projected to remain at its 1984/85 rate of 1.38 gallons. The Florida Department of Citrus projected the 1985/86 FCOJ pack at 148.0 million gallons (42% brix) versus 118.5 million in 1984/85. Imports were expected to range between 80 million and 90 million gallons; the lower figure about 3 percent higher than in 1984/85, the higher figure about 15 percent greater. Movement of FCOJ was expected to be 228–243 million gallons, substantially above the 207 million gallons moved in 1984/85. The 1985/86 carryover was projected to run between 43.3 million and 48.3 million gallons, or 9.3–11.0 weeks' supply, versus beginning stocks of 48.3 million gallons. If consumption remains at its 1984/85 rate, and depending on the level of imports from Brazil, prices should hold steady or even drop slightly.

Futures Market

FCOJ futures are traded on the Citrus Associates of the New York Cotton Exchange.



World Production of Oranges[3] In Thousands of Metric Tons

Season	Egypt	Argentina	Brazil	Australia	Greece	Israel	Italy	Japan	Mexico	Morocco	Spain	Turkey	South Africa	United States	World Total[3]
1977-8		990	4,321	352	455	949	1,950	4,120	750	1,070	1,914	785	600	9,268	28,479
1978-9		925	6,471	451	506	992	1,959	3,637	1,398	827	2,526	806	600	8,310	24,050
1979-0		921	9,282	448	360	943	2,104	3,945	1,810	1,024	2,597	835	565	10,734	38,502
1980-1		905	9,872	381	561	812	2,057	3,229	1,720	965	2,605	862	569	9,514	36,725
1981-2[3]	895	606	9,942	421	704	1,105	1,752	37	1,650	695	1,629	675	546	7,025	28,666
1982-3	1,201	639	9,210	392	665	889	1,498	52	1,380	670	1,652	656	510	8,827	29,294
1983-4[1]	1,243	500	9,588	459	691	950	2,299	60	1,220	731	2,077	600	491	6,573	28,687
1984-5[2]	1,255	600	10,812	436	787	884	1,850	59	865	735	1,235	540	491	6,095	27,915

[1] Preliminary. [2] Estimate. [3] Data prior to 1981-82 includes tangarines. *Source: Foreign Agricultural Service, U.S.D.A.* T.449

U.S. Salient Statistics of Oranges & Orange Juice

Season	Production[2] Million Boxes					Farm Price $ Per Box	Farm Value Million $	Frozen Concentrated Orange Juice—Florida in Million Gallons				Florida Crop Processed Million Boxes					Yield Per Box (Gall.)
	Arizona	California	Florida	Texas	Total			Carry-in	Pack	Total Supply	Total Season Movem.	Frozen Concentrates	Chilled Pdt's — Juice	Chilled Pdt's — Sections & Salads	Other Processed	Total Processed	
1976-7	4.0	45.3	186.8	6.9	243.0	3.34	811.2	29.7	178.7	196.2	180.9	148.7	27.3	.4	8.8	185.2	1.07
1977-8	2.6	42.6	167.8	6.1	220.1	5.45	1,198.7	29.1	185.0	200.8	185.1	132.2	25.3	.4	8.1	166.0	1.23
1978-9	2.9	37.3	164.0	6.4	210.6	6.15	1,296.0	33.5	206.2	221.9	206.1	130.2	22.8	.3	6.5	159.8	1.34
1979-0	3.5	59.4	206.7	4.0	273.6	4.76	1,304.2	37.4	256.4	293.8	239.0	174.9	24.4	.3	7.0	206.6	1.34
1980-1	2.6	65.3	172.4	4.3	244.6	4.85	1,327.7	57.3	249.6	306.9	240.6	145.3	19.6	.2	6.4	171.5	1.21
1981-2	3.1	41.9	125.8	5.9	176.7	5.30	1,295.3	69.0	214.9	283.9	230.5	105.2	16.3	.2	4.5	126.1	1.28
1982-3	3.8	76.1	139.6	5.7	225.2	6.61	1,167.8	53.4	228.4	281.8	239.0	114.6	18.1	.2	2.7	135.5	1.48
1983-4	1.8	48.5	116.7	2.5	169.5	5.85	1,317.1	42.8	239.9	282.7	228.3	94.5	17.0	—	2.9	114.4	1.29
1984-5[1]	2.5	52.0	103.9	—	158.4	7.69	1,304.3	54.4	209.6	264.0	215.7	86.1	14.9	—	1.9	102.9	1.38
1985-6[1]	2.5	51.0	130.0	.3	183.8	9.78	1,797.6	48.3									1.38

[1] Preliminary. [2] Fruit ripened on trees, but destroyed prior to picking is not included. *Source: Economic Research Service, U.S.D.A. Florida Citrus Processors Assoc.* T.450

U.S. Cold Storage Stocks of Orange Juice Concentrate[2] In Millions of Pounds (Gallon Equivalent)

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1977	613.6	681.4	845.5	932.8	955.5	1,040.6	914.3	806.5	647.1	551.7	456.3	333.3
1978	392.8	511.5	617.1	617.3	744.4	854.7	883.1	811.6	720.2	549.6	485.4	359.8
1979	506.5	762.3	996.6	995.0	1,044.4	1,186.5	1,228.4	1,116.4	926.2	704.6	560.1	466.6
1980	559.0	827.2	1,062.5	1,124.8	1,221.4	1,429.7	1,500.3	1,369.3	1,182.4	963.7	842.7	679.5
1981	722.4	907.1	1,053.2	1,180.1	1,264.4	1,502.2	1,491.3	1,307.8	1,178.8	1,022.2	892.2	759.1
1982	753.1	957.0	1,172.3	1,300.7	—	—	1,406.2	—	—	846.5	—	—
1983	835.9	1,028.1	1,016.2	963.3	1,187.0	1,408.0	1,318.6	1,192.4	960.8	810.7	684.8	595.0
1984	631.1	785.7	956.3	976.3	920.1	998.2	903.2	780.4	707.0	595.8	557.3	564.8
1985	651.6	883.4	1,050.6	1,102.7	1,188.6	1,229.5	1,063.7	1,036.1	912.4	882.2	778.8	656.0
1986[1]	679.2	888.4	966.8	910.9								

[1] Preliminary. [2] Adjusted to 42° BRIX basis (9.896 lbs./gal.) beg. 1/1/81; prev. 43.4°. *Source: Crop Reporting Board, U.S.D.A.* T.451

Month-End Open Interest of Frozen Concentrated Orange Juice Futures In Thousands of Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1978	8,973	10,002	10,611	11,980	12,381	12,878	11,964	13,950	12,781	12,878	9,212	9,073
1979	7,916	8,503	6,734	7,887	7,223	8,261	8,058	8,116	6,510	7,101	8,423	10,428
1980	7,612	6,501	6,126	6,390	6,210	5,923	6,186	6,920	8,046	9,063	9,239	9,582
1981	7,980	10,787	12,018	11,354	11,667	11,925	10,675	9,751	9,454	7,991	7,654	8,037
1982	9,519	8,634	6,580	6,238	6,227	5,808	6,007	6,395	5,666	5,775	7,106	9,359
1983	9,720	7,136	6,229	6,267	6,225	6,264	5,969	6,413	6,487	6,155	5,732	7,186
1984	8,873	10,650	11,676	11,733	11,295	12,965	11,646	10,350	10,039	9,356	9,339	8,542
1985	7,854	6,680	6,452	6,373	5,885	5,504	4,895	4,300	4,756	5,701	7,156	12,951
1986	8,763	7,782	7,827	6,469								

Source: Citrus Assoc. of the N.Y. Cotton Exch. T.456

ORANGES AND ORANGE JUICE

High, Low & Closing Prices of May Orange Juice[1] Futures at New York In Cents per Pound

Year of Delivery		Year Prior to Delivery										Delivery Year					Life of Delivery Range
		Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	
1981	High	107.80	94.75	95.50	96.90	94.55	97.50	103.00	104.45	96.15	92.20	133.50	149.50	150.20	155.10	143.50	155.10
	Low	91.35	91.50	92.80	90.60	91.10	93.45	96.80	92.45	90.25	83.30	84.00	135.25	126.80	133.70	138.00	83.30
	Close	91.35	93.00	94.40	91.10	93.20	97.50	102.20	95.00	91.80	85.00	133.35	138.40	150.20	139.60	138.35	—
1982	High	149.50	151.50	150.95	149.40	144.75	145.90	140.00	139.50	129.30	133.50	156.90	146.40	133.00	120.50	120.00	156.90
	Low	136.00	140.25	144.80	138.75	134.00	134.00	134.25	126.00	122.30	119.00	119.50	129.00	106.75	110.90	113.50	94.00
	Close	146.45	148.45	150.70	138.75	142.90	137.25	136.95	126.10	127.70	122.55	146.20	130.30	115.10	113.30	117.70	—
1983	High	142.85	130.20	132.00	130.00	130.20	133.50	133.25	130.30	128.60	129.05	122.00	112.80	114.75	115.50	120.50	163.75
	Low	122.00	121.95	126.05	123.80	126.50	127.60	129.00	125.55	126.00	121.25	105.70	103.10	107.30	113.10	113.60	103.10
	Close	127.50	126.50	127.75	130.00	128.25	133.50	129.50	126.90	127.00	121.85	107.70	110.35	114.70	113.70	119.70	—
1984	High	106.90	104.95	104.30	108.50	110.00	111.30	114.25	121.00	122.50	149.00	159.50	167.20	177.40	186.40	190.00	190.00
	Low	104.00	100.50	101.40	103.30	106.90	109.20	110.85	109.00	119.70	121.10	141.00	155.00	160.00	174.10	177.75	100.50
	Close	104.80	102.05	103.70	106.60	108.80	110.95	112.45	120.50	121.75	146.00	156.75	163.00	174.20	186.15	177.75	—
1985	High	170.00	176.00	181.50	179.50	168.50	172.00	185.00	181.75	172.90	170.00	183.50	178.00	170.35	161.40	159.90	185.00
	Low	155.00	166.50	174.50	167.00	164.90	167.00	167.50	166.50	166.80	162.40	159.20	166.60	160.30	154.70	151.00	114.90
	Close	165.60	176.00	178.65	168.00	166.90	169.70	181.20	166.90	169.90	163.90	178.60	168.10	161.60	158.20	151.20	—
1986	High	166.25	160.50	152.45	140.90	133.45	127.00	128.90	128.10	116.60	131.50	113.25	92.95				
	Low	160.35	152.50	136.70	133.10	124.00	122.95	122.65	111.95	113.00	107.25	88.30	83.50				
	Close	161.30	152.50	140.00	133.15	124.65	122.95	128.50	114.45	114.55	108.15	89.00	84.30				

[1] Frozen concentrated orange juice. *Source: Citrus Associates of the N.Y. Cotton Exch., Inc.*

T.455

Volume of Trading of Frozen Concentrated Orange Juice Futures In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	25,080	17,387	15,162	11,378	11,661	15,526	14,326	16,014	15,010	15,141	12,889	15,239	184,813
1980	21,982	13,010	22,555	9,337	6,742	7,914	8,308	9,715	11,800	16,276	13,042	22,183	162,864
1981	35,041	32,755	49,107	39,785	32,611	35,459	32,944	29,979	22,927	25,435	19,747	31,392	387,182
1982	28,968	25,524	27,139	17,038	12,206	21,501	14,577	14,242	8,424	9,606	8,647	19,188	207,070
1983	28,122	20,345	11,754	6,704	7,614	7,823	4,881	4,531	5,621	9,690	6,409	10,773	124,267
1984	33,189	36,206	34,643	32,774	26,882	30,273	23,803	15,246	36,508	23,693	11,737	12,410	317,364
1985	28,768	20,572	8,135	11.529	9,514	10,011	8,238	7,893	9,395	16,320	11,115	51,391	192,881
1986	39,756	24,971											

Source: Citrus Assoc. of the N.Y. Cotton Exch.

T.452

Wholesale Index Price of Frozen Orange Concentrate[1] 1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1979	260.2	260.2	260.2	260.2	260.2	260.2	260.2	260.2	260.2	260.2	260.2	260.2	260.2
1980	260.2	260.2	260.2	254.3	254.3	249.2	249.2	249.2	249.2	249.2	236.5	236.5	250.7
1981	241.1	280.2	312.2	338.1	338.1	338.1	338.1	338.1	335.5	334.0	323.4	313.1	319.2
1982	312.9	337.7	334.5	326.5	315.4	308.4	308.7	307.1	307.8	307.7	307.5	303.2	315.5
1983	304.0	300.8	299.6	299.1	302.3	300.7	301.1	300.8	302.4	302.5	303.8	303.9	301.8
1984	316.4	361.6	373.3	380.3	385.2	395.0	387.6	392.4	403.7	410.2	408.3	407.8	385.2
1985	400.8	419.1	419.4	418.3	420.2	416.9	410.7	396.7	395.6	379.1	365.6	357.9	400.0
1986													

[1] Packer to wholesale distributor, or retail chain store, f.o.b. plant. *Source: Bureau of Labor Statistics* (0242-0301.99)

T.454

Wholesale Price of Oranges (California) F.O.B. Packed Fresh In Dollars Per Box

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1979	13.50	12.29	13.68	13.19	13.58	15.98	13.50	12.40	12.40	11.00	11.60	10.70	12.82
1980	9.72	9.72	10.60	9.54	9.21	9.39	9.52	9.52	9.50	9.54	13.40	11.60	10.11
1981	11.00	10.90	10.20	9.78	10.00	12.10	14.10	12.80	12.60	11.70	11.50	12.70	11.62
1982	13.50	13.80	13.50	14.20	17.20	17.50	18.70	20.30	28.30	28.40	16.50	12.80	17.89
1983	10.80	10.40	10.50	10.30	9.85	10.60	11.70	11.30	10.20	9.30	12.90	13.00	10.90
1984	13.10	12.00	11.60	12.60	19.20	22.40	22.50	23.30	24.40	24.40	19.30	18.50	18.61
1985	18.70	17.50	16.20	17.10	17.40	16.60	15.90	15.80	13.90	13.70	15.30	16.20	16.19
1986	15.00												

Source: Economic Research Service, U.S.D.A.

T.453

Palm Oil

The USDA, in March 1986, estimated 1985/86 season world palm oil production at 7.74 million tonnes, up some 11 percent from estimated 1984/85 output, and an above-average rate of expansion. Much of the increased supply was expected to come from Malaysia as more trees came into the bearing stage and yields recovered from the effects of 1983 drought. According to *Oil World*, seasonal fluctuations in Malaysian yield have been exacerbated as a result of weevil pollination. World production of palm oil is second only to global output of soybean oil.

Global consumption of palm oil in the 1985/86 season was forecast by the USDA in March 1986 at 7.50 million tonnes, up about 8 percent from estimated 1984/85 use, influenced in part by its low price relative to other oils. World exports were expected to increase to 5.69 million tonnes from 5.13 million in 1984/85. Malaysia continues as the key supplier of palm oil to the world market, accounting directly or indirectly (re-exports through Singapore) for virtually all supplies in the trade, according to the USDA. World palm oil exports exceed soybean oil exports by a considerable margin, although global consumption of palm oil is little more than one-half as large as consumption of soybean oil. In view of supply and price considerations in the first half of the 1985/86 season, consumption of palm oil might be expected to gain at the expense of soybean oil.

U.S. imports of palm oil have increased sharply as a result of its relatively attractive price. In the first four months of the 1985/86 season, the U.S. imported 117,684 tonnes of palm oil, up 95 percent from the 60,320 tonnes imported in the same four months of the 1984/85 season.

Ending 1985/86 world stocks of palm oil were projected by the USDA to increase to 880 thousand tonnes from 770 thousand a year earlier.

World Palm Oil Statistics In Thousand Metric Tons

	Production									Exports							
Crop Year	Malaysia	Colombia	China	Indonesia	Ivory Coast	Papua N. Guin.	Zaire	Nigeria	World Total	Malaysia	Indonesia	Ivory Coast	E.C.-10	Singapore	Zaire	Papua N. Guin	World Total
1978	1,786	51	87	525	150		137	515	3,713	1,514	412	82		299	10	28	2,481
1979	2,188	70	93	641	124	36	173	500	4,265	1,901	351	49	92	492	—	35	2,935
1980	2,540	75	100	702	182	39	171	520	4,828	2,216	503	80	121	679	10	36	3,721
1981	2,693	80	106	752	147	45	175	520	5,950	2,434	196	63	111	423	5	44	3,860
1982	3,351	87	112	884	160	80	175	525	5,910	2,660	260	68	94	502	5	77	4,030
1983[1]	3,179	104	115	983	162	85	159	530	6,200	2,869	346	58	139	420		80	4,160
1984[1]	3,322	118	110	1,055	167	110	157	540	6,940	2,813	128	56	132	763		105	5,130
1985[2]	3,817	132	110	1,148	165	120	160	550	7,740	3,425	120	53	138	400		115	5,690
1986[2]	4,500																

[1] Preliminary. [2] Projected. *Source: Economic Research Service, U.S.D.A.* T.457

Palm Oil—U.S. Supply & Distribution In Millions of Pounds

	Supply			Utilization								Prices		
				Food Uses										
Year Begin. Oct.	Imports	Stocks Oct. 1	Total Supply	Shortening	Margarine	Salad or Cooking Oil	Other	Total	Non-Food Uses	Total Disappearance	Exports (& Shipments)	Palm Kernel Oil ¢ Per Pound	U.S. Ports C.I.F. ¢ Lb.	Malaysia U.S. $ Metric Ton
1978-9	277	74	351							265	12	36.9	28.7	
1979-0	212	74	280							223	21	42.1	31.2	
1980-1	324	42	242	188						299	9	42.8	28.1	
1981-2[1]	218	58	276	192						218	10	42.8	27.1	
1982-3[1]	282	47	329	206						286	4			406
1983-4[1]	413	69	482	270						402	29			767
1984-5[1]	375	51	426							351	18			569
1985-6[1]	606	57	663							585	0			311

[1] Preliminary. [2] Malaysia FOB; RBD. *Source: Economic Research Service, U.S.D.A.* T.458

Average Wholesale Palm Oil Prices, CIF, Bulk, U.S. Ports In Cents Per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1978	23.1	25.2	27.4	28.0	28.4	30.6	31.2	28.5	29.8	30.5	30.4	31.0	28.7
1979	31.7	32.8	31.1	31.2	31.5	32.1	33.6	31.5	30.3	29.1	29.1	30.1	31.2
1980	32.0	32.4	31.8	29.6	27.8	28.1	27.6	26.5	25.5	22.3	27.1	26.9	28.1
1981	27.5	28.3	25.5	27.5	27.6	N.A.	N.A.	25.0	24.7	N.A.	N.A.	N.A.	27.1
1982	N.A.	N.A.	24.0	23.7	24.4	22.3	18.9	18.6	19.3	18.0	19.0	20.0	20.8
1983	19.5	19.0	18.8	19.8	20.7	19.5	20.6	26.2	30.6	31.1	32.0	37.5	24.6
1984	40.5	38.2	36.6	37.0	43.0	36.3	28.2	28.4	30.3	28.3	32.4	29.8	34.1
1985	28.3	29.0	29.5	34.3	34.6	31.6	28.7	25.1	23.5	21.7	19.9	19.7	27.2

Source: Economic Research Service, U.S.D.A. T.459

Paper

International prices for market pulp fell sharply—on the order of 10 percent—during the first half of 1985, continuing a downward tendency that began in mid-1984. The principal contributors to the price drop were fluctuations in currency exchange rates and continuing growth of output from mills in both the U.S. and Europe.

These developments had an adverse effect in 1985 on both output and net income of the U.S. paper and paperboard industry, which began the year burdened by large inventories of unsold product accumulated in the latter half of 1984. On the operating side, total shipments by paper and paperboard establishments during 1985 were estimated to be 2 percent under the level of the previous year; operations in some U.S.-based mills were suspended during 1985's second quarter, in order to reduce the amount of unsold inventory. U.S. exports of paper and paperboard, measured in tonnage, fell on the order of 10 percent; the physical volume of imports into this country rose 10 percent.

U.S. production of paper and paperboard totaled about 67.2 million short tons in 1985, off less than 2 percent from 1984 output, according to preliminary Department of Commerce data.

Production of newsprint in Canada amounted to about 8.99 million metric tons in 1985, off marginally from 1984 output. U.S. production of newsprint declined by about 2 percent in 1985, to 4.92 million metric tons. Total estimated U.S. consumption of newsprint by all newspaper users in 1985 was placed at 11.6 million metric tons, up about 1.3 percent from the 1984 figure of 11.4 million.

In the first quarter of 1986, the U.S. paper industry was recovering from a disappointing showing in 1985, with production reportedly at a record rate. Lower interest rates and inflation, sharply lower oil prices, and increased consumer confidence were said to be helping producers of paper, pulp and paperboard to stage a sharp recovery.

Shipments of (Paper Products) Shipping Containers[1] In Millions of Square Feet Surface Area

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1982	18,896	18,706	21,147	19,957	18,777	20,084	18,677	20,462	20,650	21,025	19,179	17,646	235,185
1983	19,987	18,628	21,828	20,491	20,719	22,044	19,588	22,692	22,335	23,557	21,032	19,873	252,539
1984	21,889	21,903	23,777	22,111	23,082	22,489	21,257	23,759	21,605	24,852	21,103	19,496	268,070
1985[2]	22,918	20,337	21,708	22,582	22,345	21,245	22,025	23,167	22,037	25,515	20,726	19,594	264,128
1986[2]	24,075												

[1] Corrugated & solid fiber. [2] Preliminary. *Source: National Paperboard Association* T.463

Index Price of Coated Printing Paper, No. 3 Dec. 1973 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1982	203.8	204.9	203.8	202.7	202.7	202.7	201.4	200.0	203.3	203.0	203.5	203.5	203.0
1983	203.5	203.6	203.5	204.2	204.2	204.3	204.3	203.7	210.8	210.9	211.7	211.8	206.4
1984	213.3	220.3	220.9	223.2	223.2	224.2	224.8	224.8	224.8	224.8	233.6	233.6	224.3
1985	234.2	234.6	234.6	234.6	234.6	234.6	234.6	234.6	234.6	234.6	234.6	234.2	234.5
1986	234.2	233.8											

Source: Bureau of Labor Statistics (0913-0113.99) T.470

Salient Statistics of Newsprint in the United States and Canada In Thousands of Metric[3] Tons

	United States													Canada		
			Imports[3] By Countries of Origin									Stocks, Dec. 31				
Year	Production	Exports	Canada	Finland	Italy	Norway	Sweden	U.K.	Others	Total	Consumption	At Mills	At Publishers[2]	Production	Exports	Stocks At Mills
1982	4,574	275	6,485	11	0	19	0	0	16	6,531	10,107	86	854	8,109	7,120	256
1983	4,688	265	6,845	17		33	21			6,919	10,587	99	790	8,486	7,470	303
1984	5,025	258	7,688	31		63	86			7,899	11,431	60	874	9,013	8,133	298
1985[1]	4,924	279	8,129	47		78	131	18		8,472	11,580	57	910	8,988	8,275	290

[1] Preliminary. [2] Reporting only to A.N.P.A.; group represents about 75%. [3] Data for imports are in thousands of short tons. *Source: Newsprint Service Bureau, A.P.I.* T.464

Average Price of Newsprint Rolls Index: 1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1982	316.8	318.1	318.1	321.1	322.4	319.4	318.4	318.4	318.4	318.4	299.8	299.8	315.8
1983	299.1	299.1	299.1	299.1	299.1	299.1	295.0	305.8	310.4	310.4	309.6	309.6	303.0
1984	309.6	309.6	316.0	314.8	314.8	314.8	334.5	331.2	331.2	332.5	334.9	333.2	323.1
1985[2]	334.3	332.4	332.4	332.6	332.9	333.7	333.0	334.9	333.9	329.3	331.0	330.2	332.5
1986[2]	324.1	324.8											

[1] Standard rolls, contract, delivered to principal ports. [2] Preliminary. *Source: Bureau of Labor Statistics* (0913-0291.99) T.468

U.S. Production & Consumption & Foreign Trade of Woodpulp In Thous. of Short Tons[6]

	Woodpulp Production												Consumption in the Manufacture of Paper and Board			Woodpulp	
		Sulfite		Sulfate													
Year	Dissolving Pulp	Bleached	Unbleached	Bleached	Paper Grades[2]	Unbleached	Soda	Groundwood	Semi-Chemical	Defibrated[3]	Screenings Damaged etc	Total Wood Pulp	Wood Pulp[4]	Waste Paper[5]	Pulpwood[6]	Exports	Imports
1980	1,508	—1,911—		17,561	40,430	19,735	N.A.	4,579	4,043		N.A.	50,560	N.A.	14,520	79,703	3,805	4,051
1981	1,365	—1,797—		41,376				5,320	3,924			51,982		15,409	79,747	3,678	4,086
1982	1,093	—1,434—		39,478				5,063	3,700			49,333		13,565	79,039	3,395	3,894
1983	1,261			42,358				5,067	3,851			52,537		14,696	85,442	3,674	4,093
1984[1]	1,206			44,732				5,509	4,100			55,548		15,926	87,646	3,694	4,490
1985[7]	1,177			43,585				5,260	4,059			54,081		15,290	85,744	3,794	4,466

[1] Preliminary. [2] Chemical pulp. [3] Or exploded. [4] Does not include wood pulp consumption by plants classified outside paper & board industries. [5] Waste paper; straw; rags; cotton fibre; manila stock; etc. [6] Data for pulpwood expressed in thousands of cords of 128 cu. ft.—roughwood basis. Pulpwood includes slabs, chips, & millwaste. [7] Estimate. *Sources: Bureau of the Census, American Paper Inst.* T 465

Paper and Board Production in the United States In Thousands of Short Tons

	Paper							Paperboard					Construction[3]		
Year	Newsprint[5]	Coated (Shipments)	Tissue Paper	Uncoated Free Sheet (Shipments)	Coarse[2]	Sanitary	All Paper Total	Other Bleached Paperboard	Corrugating Material	Unbleac Kraft	All Paperboard Total	Wet Machine Board	Construction (Paper)	All Construction Total	Total All Types
1980	4,239	4,673	4,375	8,326	5,327	4,298	30,195	1,794	5,864	14,249	30,952	138	1,369	4,390	65,834
1981	4,752	4,940	4,518	8,234	5,700	4,600	31,030	1,900	6,000	14,800	31,232	160	1,200	3,847	66,440
1982	4,574	4,974	4,438	8,184			30,422				29,065				
1983	4,688	5,716	4,789	9,069			32,823				32,177				
1984[1]	5,025	6,281	4,921	9,474			34,409				34,039				
1985[4]	4,924	5,717	4,941	9,980			33,986				33,188				

[1] Preliminary. [2] Packaging & industrial converting paper. [3] Paper & board. [4] Estimate. *Source: Bureau of the Census.* T 467

Average Price of Wood Pulp, Bleached Sulphate Softwood 1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1980	440.95	440.95	440.95	473.35	473.35	473.35	476.97	476.97	476.97	476.97	476.97	476.97	467.05
1981	476.97	476.97	476.97	487.64	487.54	487.54	487.54	487.54	487.54	488.07	506.75	506.75	488.15
1982	408.1	406.9	406.9	392.4	386.6	383.8	362.0	357.9	354.4	347.9	347.2	346.9	375.0
1983	333.7	330.7	322.3	319.2	321.4	323.2	328.5	331.4	333.3	342.4	353.3	351.2	332.5
1984	354.8	385.0	387.8	417.8	439.2	440.2	439.1	437.3	434.3	431.1	423.4	404.5	416.2
1985	385.4	366.0	352.1	337.6	331.8	330.7	332.2	328.9	323.3	330.5	324.0	320.5	338.8
1986	313.3												

Source: Bureau of Labor Statistics (0911–0211.09) T 469

Index Price of Shipping Sack Paper[1] Dec. 1973 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1979	168.2	168.2	171.0	178.6	178.6	178.6	178.6	178.6	178.6	185.7	187.3	187.3	178.3
1980	176.5	183.7	188.3	195.5	195.5	195.5	192.2	194.2	194.2	194.2	N.A.	194.2	191.3
1981	203.2	213.0	217.4	221.2	224.5	224.5	224.5	224.5	224.5	224.5	223.4	219.5	220.4
1982	219.5	222.2	220.7	220.7	216.3	207.2	207.2	207.2	207.2	213.9	213.9	213.9	214.2
1983	220.7	222.9	222.9	N.A.	222.9	226.7	226.7	226.7	230.7	230.7	231.8	231.8	226.8
1984	231.8	238.8	247.2	247.2	247.8	247.8	241.1	241.1	241.1	241.1	241.1	233.0	240.3
1985[2]	233.0	233.0	225.7	223.9	227.5	222.7	211.0	N.A.	211.0	211.0	211.0	211.0	220.1
1986[2]	211.0												

[1] Unbleached kraft. [2] Preliminary. *Source: Bureau of Labor Statistics* (0913–0304.99) T 471

Peanuts and Peanut Oil

The 1985/86 world peanut (groundnut) crop was estimated by the USDA in early March 1986 at a record-large 20.61 million tonnes (in-shell basis), up 4 percent from estimated 1984/85 output. China, which this season has replaced India as the world's largest producer, was estimated to have increased its production by 37 percent, to 6.60 million tonnes. In contrast, India's production was expected to drop 17 percent, to about 5.60 million tonnes. Expected lower production was due primarily to delayed plantings and severe drought in Gujarat, the major groundnut producing state, as well as inadequate rainfall in other important-producing states, such as: Maharashtra, Madhya Pradesh, Karnataka, Andhra Pradesh and Rajasthan. U.S. peanut production is a distant third to the two leading producers, with its 1985/86 crop expected to be about 6 percent lower than in 1984/85.

The 1985/86 world crush of peanuts was expected to match the 4 percent gain in estimated output. The estimated crush of 11.22 million tonnes for the 1985/86 season is exceeded only by the record crop of 11.32 million tonnes in the 1981/82 season.

A growing world demand for edible groundnuts for direct food consumption was expected to support peanut exports in 1985/86. However, a slight reduction in world exports, to 1.0 million tonnes, was forecast. The U.S. is the world's largest exporter of peanuts, and its exports in 1985/86 were expected to be about as large as in the previous season.

World peanut meal production in the 1985/86 season was estimated by the USDA in March 1986 at 4.53 million tonnes, slightly above estimated 1984/85 production. Global consumption was expected to match production as peanut meal prices appeared attractive relative to many other competitive meals. Peanut meal exports were forecast to increase somewhat, to 560 thousand tonnes. Although strict aflotoxin regulations were expected to limit imports by the European Community, increased imports by Eastern European countries were considered likely.

Global production of peanut oil in the 1985/86 season was forecast by the USDA at 3.20 million tonnes, up from 3.10 million estimated for the previous season. World consumption was pegged at an estimated 3.16 million tonnes, up from a preliminary figure of 3.14 million for the 1984/85 season. Exports were estimated to increase by about 15 percent, to 300 thousand tonnes, although imports by France, the world's largest importer of peanut oil, were expected to be reduced because of increasing availability of alternative oils such as sunflowerseed oil.

U.S. 1985/86 beginning stocks of peanuts on August 1, 1985 were a record large 1.42 billion pounds. However, 1985 production was 6 percent below 1984/85 output. Harvested acreage was off 5 percent because of fewer acres planted, but yields were record high with the average 2,902 lbs. per acre. As a result, total supplies for the 1985/86 season were record large. While the crush was forecast to increase to about 846 million lbs. from 623 million in 1984/85, exports were expected to decrease to about 815 million pounds from 861 million in the previous season, and ending stocks were projected to increase to a new record high of 1.53 billion pounds.

Domestic food use of peanuts in 1984/85 was up 4 percent from 1983/84. Forty-six percent of the use was in peanut butter, 21 percent as salted peanuts, 19 percent peanut candy, 11 percent roasting stocks, and the remainder commercial peanut butter snack sandwiches and other uses.

U.S. peanut producers overwhelmingly approved poundage quotas for the 1986–90 crops according to results of a referendum held in January 1986 and released on April 1, 1986. Two-thirds of the farmers voting must favor continuing the peanut program for quotas to remain in effect—97.4 percent of the 21,456 farmers voting indicating approval.

U.S. Government Price Support

The Food Security Act of 1985 extended the peanut program for 5 years (1986–1990), with some changes in the national quota poundage formula and quota support levels. The national quota for 1986 through 1990 marketing years must equal the estimated quantity that will be used in each year for domestic edible, seed, and related uses. The minimum poundage quota is 1.1 million tons. The 1986 quota was set at 1,355,[illegible]00 tons, up 255,500 from 1985.

The 1986 quota support is to be adjusted for any increase in the prices paid for commodities and services, interest, taxes, and wage rates during 1981–85. The national average support level for 1986-crop peanuts was set at $607.47 a short ton, up $48.47 from 1985. Additional peanuts will be supported at $149.75 per ton, up $1.75. The minimum sales price for additional peanuts sold by the CCC for export edible use will be no less than the lower of $400 per ton or 102 percent of the average price for additional peanuts delivered under contract. The minimum sales price for 1985-crop peanuts is $425.

World Production of Peanuts (in the Shell) In Thousands of Metric Tons

Crop Year	Argentina	Brazil	Burma	China (mainland)	India	Indonesia	Mali	Nigeria	South Africa	Senegal	Sudan	Taiwan	Thailand	United States	Zaire (Congo)	World Total
1978–9	672	465	384	2,377	6,208	708	107	341	179	1,053	815	92	102	1,793	295	17,832
1979–0	337	545	337	2,822	5,768	783	57	377	348	673	852	86	122	1,800	295	17,339
1980–1	243	310	431	3,600	5,005	791	92	560	309	521	707	82	130	1,045	320	16,200
1981–2	270	305	564	3,826	7,223	728	80	610	116	878	840	83	146	1,806	310	19,900
1982–3	250	250	541	3,916	5,282	795	80	580	89	1,109	497	63	145	1,560	310	17,487
1983–4	329	220	523	3,951	7,284	747	90	400	72	568	460	98	135	1,495	310	18,679
1984–5[1]	260	340	656	4,810	6,740	755	90	570	200	560	390	90	130	1,998	310	19,840
1985–6[2]	250	220	660	6,600	5,600	762			270	580	340			1,879		20,620

[1] Preliminary [2] Estimated *Source: Foreign Agricultural Service, U.S.D.A.* T.474

Salient Statistics of Peanuts in the United States

Crop Year	Acreage Planted	Acreage Harvested For Nuts	Average Yield Per Acre In Lbs.	Production Picked and Threshed 1,000 Lbs.	Season Farm Price ¢ Lb.	Farm Value Million Dollars	Thousand Pounds (Yr. Beg. Aug.) Exports		Imports	
	(1,000 Acres)						Unshelled	Shelled	Unshelled	Shelled
1973–4	1,530	1,496	2,323	3,473,837	16.2	562,460	66,094	523,986	79	444
1974–5	1,520	1,472	2,491	3,667,604	17.9	657,987	17,703	548,083	127	466
1975–6	1,532	1,500	2,564	3,846,722	19.6	754,491	22,708	318,229	207	290
1976–7	1,549	1,518	2,464	3,739,190	20.0	746,675	24,765	580,496	432	66
1977–8	1,545	1,512	2,456	3,715,055	21.0	780,869	64,284	705,032	413	148
1978–9	1,541	1,509	2,619	3,952,384	21.1	833,885	94,612	713,701	413	139
1979–0	1,546	1,520	2,611	3,968,485	20.6	819,276	64,810	762,304	424	140
1980–1	1,521	1,400	1,645	2,302,762	25.1	578,635	33,071	353,677	3,597	3,710
1981–2	1,514	1,489	2,675	3,981,850	26.9	1,069,526	77,803	375,029	6	4,632
1982–3	1,311	1,277	2,693	3,440,255	25.1	862,686	51,321	473,406	846	1,323
1983–4	1,411	1,374	2,399	3,295,530	24.7	814,579	39,509	529,942	298	1,715
1984–5[1]	1,563	1,531	2,878	4,405,745	25.6	1,278,592				
1985–6[2]	1,492	1,462	2,833	4,141,640	20.5	849,028				
1986–7[3]										

[1] Preliminary. [2] Estimate. [3] Prospective plantings. *Source: Economic Research Service, U.S.D.A.* T 475

Peanuts Supply & Disposition (Farmers' Stock Basis) & Support Program in the United States

Crop Year Begin. Aug. 1	Supply Production[3]	Imports	Stocks Aug. 1	Total	Disposition Exports & Shipments	Crushed for Oil	Seed, Feed & Residual	Domestic Food Use Military	Civilian	Civilian per Capita Lbs.	Government Support Program Support Price	Additional	Amount Put under Support Quantity Mil. Lbs.	% of Prod.	Owned by CCC July 31 Mil. Lbs.
	Million Pounds										¢ per lb.				
1973–4	3,474	1	429	3,904	709	683	119	—	1,840	8.8	16.42		1,029	29.6	0
1974–5	3,668	1	553	4,222	740	590	−54	—	1,800	8.5	18.30		1,072	29.2	552
1975–6	3,847	1	1,146	4,993	434	1,447	193	—	1,859	8.7	19.70		1,136	29.5	958
1976–7	3,739	1	1,060	4,800	783	1,108	513	—	1,789	8.4	20.70		854	22.8	0
1977–8	3,715	1	608	4,324	1,025	487	392	—	1,838	8.5	21.50		535	14.4	2
1978–9	3,952	1	581	4,534	1,141	527	284	—	1,996	9.2	21.00	12.5	515	12.9	—
1979–0	3,968	1	586	4,555	1,057	571	273	—	2,028	9.3	21.00	15.0	709	17.9	—
1980–1	2,303	401	628	3,332	503	446	321	—	1,647	9.0	22.75	12.5	337	14.6	—
1981–2	3,982	2	413	4,397	576	573	558	—	1,933		22.75	12.5	835	20.9	2
1982–3	3,440	2	757	4,199	681	342	256	—	2,056		27.50	10.0	539	15.7	—
1983–4	3,296	2	864	4,162	744	387	395	—	2,025		27.50	9.3	367	11.1	—
1984–5[1]	4,406	2	611	5,019	861	623	2	—	2,109		27.50	9.3	1,370	30.9	—
1985–6[2]	4,142	2	1,424	5,568	815	846	272	—	2,185		27.95	7.4			
1986–7[2]			1,530												

[1] Preliminary. [2] Estimate. [3] Production is on a net weight basis. *Source: Economic Research Service, U.S.D.A.* T 476

U.S. Production of Peanuts (Harvested for Nuts) by States In Millions of Pounds

Crop Year	Alabama	Arkansas	Florida	Georgia	Louisiana	Mississippi	New Mexico	No. Car.	Oklahoma	So. Car.	Tennessee	Texas	Virginia	U.S. Total
1973	400.0	—	150.4	1,344.0	—	16.6	18.9	466.5	253.7	30.1	—	471.2	322.4	3,474
1974	474.4	—	170.5	1,661.5	—	6.0	13.0	384.3	217.7	31.0	—	413.3	295.9	3,668
1975	535.6	—	177.7	1,726.6	—	13.5	20.2	373.7	232.3	29.5	—	463.6	284.6	3,847
1976	513.6	—	165.0	1,554.3	—	12.3	21.7	440.7	246.0	24.6	—	463.6	309.0	3,739
1977	589.1	—	170.5	1,499.1	—	11.6	25.4	444.1	267.6	31.2	—	394.5	293.0	3,715
1978	551.8	—	182.1	1,725.3	—	13.1	24.1	465.4	207.0	35.7	—	436.5	311.6	3,952
1979	584.9	—	179.9	1,704.8	—	12.4	25.3	378.5	264.0	32.3	—	533.0	253.5	3,968
1980	265.0	—	143.0	994.6	—	7.5	22.4	291.3	140.2	14.3	—	293.3	129.8	2,303
1981	602.7	—	178.0	1,655.5	—	12.7	24.9	555.6	189.3	39.0	—	393.3	330.8	3,982
1982	522.2	—	153.0	1,517.5	—	—	25.2	417.2	174.6	30.0	—	325.1	275.5	3,440
1983	454.5	—	166.8	1,568.0	—	—	25.6	318.3	176.5	25.0	—	362.3	198.6	3,296
1984	648.6	—	246.4	2,160.0	—	—	32.2	449.5	189.0	39.2	—	371.3	269.7	4,406
1985[1]	600.0	—	216.0	1,927.8	—	—	31.2	452.0	170.1	34.2	—	432.0	278.4	4,142

[1] Preliminary, December estimate. *Source: Crop Reporting Board, U.S.D.A.* T 477

PEANUTS AND PEANUT OIL

Disappearance and Reported Uses of Peanuts and Products in the U.S. In Millions of Pounds

	Apparent Disappear.[2] (Milled Peanut Prod.)						Reported Used (Shelled Peanuts—Raw Basis)								
	Shelled Peanuts						Edible Grades Used in								
							Peanut								
Year Begin. Aug. 1	Edible Grades	Oil Stock[3]	Total All Grades	Cleaned (In Shell)	Crude Peanut Oil[4]	Cake & Meal[4]	Candy	Salted	Sand-wich Spread	Butter[5]	Other Products	Roast-ing Stocks	Total	Oil Stock Crushed For Oil, Cake & Meal	Total All Grades
1976-7	1,700	783.2	2,483	163.2	342.9	460.7	235.0	[illegible]3.8	24.2	617.9	17.8		1,149	833.2	1,982
1977-8	1,895	461.2	2,356	190.6	179.1	208.9	235.2	274.2	28.2	623.8	18.7		1,180	366.2	1,546
1978-9	1,955	426.9	2,382	210.9	161.6	227.9	268.4	291.6	28.1	664.9	19.1		1,272	396.0	1,668
1979-0	1,979	503.9	2,483	201.4	175.3	228.4	258.4	284.9	30.3	700.0	19.3		1,293	429.1	1,722
1980-1	1,097	306.0	1,403	120.3	143.5	189.6	237.9	205.5	24.1	588.6	19.7		1,076	335.5	1,411
1981-2	1,096	377.6	2,283	200.7	155.7	233.7	255.9	278.0	22.7	653.7	15.3		1,226	431.5	1,657
1982-3[1]				206.4		145.5	284.2	308.1	21.9	677.6	17.0	155	1,464	256.4	
1983-4[1]				173.0		149.9	298.1	302.0	24.3	671.4	15.5	130	1,441	291.1	
1984-5[6]							291	309	26	697	19	159	1,501		

[1] Preliminary. [2] Includes in transit, exports and domestic use, except for oil stock for which disappearance is assumed to equal crushings. [3] Graded & ungraded oil stock only. [4] Relates to peanut oil mills only. [5] Peanuts used in peanut butter by mfrs. for own use in candy is included under peanut candy. [6] Estimate. *Source: Statistical Reporting Service, U.S.D.A.* T.481

Visible Supply (Stocks) of Peanuts and Products on Hand in the U.S. In Millions of Pounds

	Farmers' Stock Peanuts[2]				Shelled Edibles								
Year Begin. Aug. 1	Vir-ginias	Run-ners	Span-ish	Total	Vir-ginias	Run-ners	Span-ish	Total	Shelled Oil Stock[3]	Total Shelled	Roasting Stock[5]	Peanut Oil[4]	Peanut Cake & Meal[4]
1977-8	2.0	49.4	3.0	54.4	62.1	255.0	55.4	372.5	29.8	402.3	18.2	221.5	11.7
1978-9	8.0	20.0	.6	28.7	62.5	251.6	44.8	359.0	37.4	581.4	25.6	46.0	10.9
1979-0	7.2	5.9	.3	13.5	87.7	214.2	46.1	348.0	46.4	586.3	48.2	53.2	1.0
1980-1	8.4	44.0	11.0	63.4	67.9	265.4	38.4	371.7	29.5	627.5	30.6	44.1	8.8
1981-2	14.1	14.1	.2	28.3	56.6	181.0	30.7	268.3	10.4	413.3	14.4	28.1	7.3
1982-3	24.3	60.6	0	84.9	129.0	273.3	48.2	450.4	20.6	756.6	45.2	60.3	9.7
1983-4[1]				51.4				537.9	19.2	864.0	71.8	N.A.	4.0
1984-5[1]				8.8				402.4	33.1	611.3	23.3	32.4	14.0

[1] Preliminary. [2] Excludes stocks on farms, but includes stocks owned or held for account of C. C. C. [3] Includes ungraded or straight run peanuts. [4] Crude & refined. [5] Cleaned & unshelled. *Source: Agricultural Marketing Service, U.S.D.A.* T.478

World Imports of Peanut Oil (Crude & Refined) into Specified Countries In Thousands of Metric Tons

Crop Year	Al-geria	Aus-tralia	Austria	Bel-gium-Lux.	Vene-zuela	Canada	Domin-ican Rep.	France	West Ger-many	Hong Kong	Italy	Singa-pore	Nether-lands	Swit-zerland	Port-ugal	United King-dom	Total
1977	5	4	2	29	64	7	15	217	37	23	31	2	8	—	—	16	
1978-9	—	1	2	35	66	6	2	221	40	25	46	2	21	20	—	15	454
1979-0	—	2	2	42	1	5	—	247	39	29	42	2	34	20	—	17	490
1980-1	—	—	3	33	—	5	—	161	26	28	20	3	23	10	—	12	327
1981-2		1		44		4		194	28	26	34		21	15		15	390
1982-3		2		57		4		223	25	28	37		24	11		17	446
1983-4		0		42		4		154	20	25	27		20	8		10	331
1984-5[1]		3		35		3		129	18	25	25		20	15		15	295
1985-6[2]				34				110	18	25	20		20	15	-	15	271

[1] Preliminary. [2] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T.482

Production, Consumption, Stocks and Foreign Trade of Peanut Oil in the U.S. In Millions of Pounds

	Production		Consumption		Stocks—Dec. 31			Exports	
Year	Crude	Refined	In Refining	In End pdt's.	Crude	Refined	Imports for Con-sumption	Crude	Refined
1977	252.0	249.7	257.2	243.9	91.5	7.6	—	71.8	9.7
1978	145.2	171.9	178.0	169.0	7.3	4.7	—	32.9	7.6
1979	183.0	130.1	134.3	120.4	22.6	7.3		14.4	1.2
1980	182.4	170.6	166.7	165.3	7.5	4.3		46.0	1.6
1981	141.6	122.8	133.5	115.3	12.9	5.2		38.1	2.7
1982[1]	N.A.	148.0	162.1	150.2	N.A.	4.5		45.5	.6
1983[1]	N.A.	165.0	178.5	169.4	N.A.	2.9		67.4	.4
1984[1]	108.2	136.4	144.6	131.9	11.1	3.3			
1985[1]	146.7	119.3	125.2	N.A.	17.1	3.5			

[1] Preliminary. *Source: Bureau of Census* T.483

Utilization of Peanut Oil in the United States In Thousands of Pounds

Year Begin. Aug.	Shortening	Margarine	Cooking and Salad Oils	Other Edible	Total Food Uses	Non-Food Uses	Factory Consumption	Foots & Loss	Domestic Disappearance
1975–6	27,000	28,000	150,000	59,000	264,000	12,000	232,000	9,000	276,000
1976–7	29,000	27,000	143,000	26,000	225,000	8,000	218,000	6,000	232,000
1977–8	20,000	—	211,000	−47,000	183,000	11,000		8,000	194,000
1978–9	16,000		96,000						120,000
1979–0[1]			148.000						193,000
1980–1[2]			100,000						150,000
1981–2[2]			136,000		139,000				
1982–3[2]			157,000		174,000				
1983–4[2]			119,000		131,000				
1984–5[2]					118,405				

[1] Preliminary. [2] Estimate. *Source: Bureau of the Census* T.484

Average Price Received by Producers in U.S. for Peanuts in the Shell In Cents Per Pound

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average[1]
1975–6	19.7	19.8	19.6	18.7	—	—	—	—	—	—	—	19.1	19.6
1976–7	19.8	19.9	20.0	20.0	20.2	—	—	—	—	—	—	21.3	20.0
1977–8	20.9	20.9	20.4	20.4	21.0	—	—	—	—	—	—	21.2	21.0
1978–9	20.8	21.4	21.0	20.8	21.2	—	—	—	—	—	—	21.2	21.1
1979–0	21.4	20.3	20.4	20.4	20.4	—	—	—	—	—	—	—	20.6
1980–1	22.5	23.2	27.9	37.3	47.7	—	—	—	—	—	—	—	25.1
1981–2	28.9	26.7	25.1	25.8	24.9	—	—	—	—	—	—	25.7	26.9
1982–3	25.1	24.9	25.3	26.1	22.9	—	—	—	—	—	—	27.1	25.1
1983–4[2]	25.2	24.3	24.5	25.4	27.8	—	—	—	—	—	—	27.3	24.1
1984–5[2]	26.3	24.5	25.6	26.3	—	—	—	—	—	—	—	22.1	24.8
1985–6[2]	22.3	23.1	23.6	24.1	22.4	19.8	—	—					

[1] Weighted average by sales. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.479

Crude Peanut Oil Produced[2] in the United States In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1976	26.6	32.6	44.3	51.1	56.9	66.5	47.6	41.5	39.0	31.5	24.6	24.5	486.6
1977	20.7	24.7	35.5	33.0	32.8	30.1	24.7	22.4	6.9	6.1	10.5	4.4	252.0
1978	9.7	9.2	11.1	18.0	18.1	18.1	10.4	16.6	7.7	10.3	6.3	9.5	145.2
1979	11.7	14.2	22.5	18.6	23.0	15.5	8.2	10.8	4.5	4.5	6.1	7.7	183.0
1980	6.2	15.1	16.7	25.9	30.7	22.9	23.5	21.2	5.9	2.1	6.3	5.9	182.4
1981	6.1	6.0	10.5	17.3	19.1	19.5	13.6	9.8	5.3	9.7	12.0	12.7	141.6
1982	11.3	11.1	19.4	26.3	22.3	19.0	15.0	11.8	N.A.	N.A.	N.A.	N.A.	N.A.
1983	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1984	12.1	13.3	10.8	12.5	10.1	8.9	5.1	5.3	4.3	9.9	8.6	7.3	108.2
1985[1]	9.8	13.9	15.8	15.5	14.5	12.4	10.4	10.0	10.1	9.2	10.2	14.9	146.7
1986[1]	19.2	21.7											

[1] Preliminary. [2] Not seasonally adjusted. *Source: Statistical Reporting Service, U.S.D.A.* T.473

Average Price of Domestic Crude Peanut Oil (in Tanks) F.O.B. Southeast Mills In Cents Per Pound

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average
1975–6	42.2	39.3	35.3	35.4	37.8	38.9	35.4	31.0	33.5	38.3	36.4	38.0	37.1
1976–7	38.0	37.3	38.9	40.3	41.0	40.8	43.6	35.5	34.7	29.8	29.2	30.7	36.6
1977–8	34.1	33.4	42.8	47.3	44.9	41.2	46.6	48.1	47.1	44.5	44.9	48.6	43.6
1978–9[1]	45.1	49.7	46.0	51.4	47.4	37.9	40.9	41.2	36.5	39.0	37.0	35.5	42.3
1979–0	34.4	31.1	29.5	25.9	25.8	22.9	20.5	22.4	23.1	26.9	33.2	36.0	27.6
1980–1	35.8	48.7	49.1	47.7	39.3	34.1	34.0	37.1	38.0	38.1	43.2	40.3	40.5
1981–2	34.5	34.5	30.9	27.3	31.4	23.3	29.1	29.9	26.2	24.7	22.7	22.5	28.1
1982–3	22.9	25.2	26.1	25.6	25.7	24.1	25.1	26.4	26.4	26.7	30.7	50.5	28.0
1983–4	50.7	48.8	48.1	47.3	46.5	48.4	52.6	58.2	59.1	57.7	54.8	39.2	47.3
1984–5	36.7	41.2	41.4	39.2	38.8	40.3	49.6	46.2	40.7	39.7	37.6	33.9	40.4
1985–6	38.3	42.2	36.1										

[1] Prices prior to 1978–9 are for REFINED in New York. *Source: Agricultural Marketing Service, U.S.D.A.* T.485

Pepper

Preliminary data indicate that worldwide pepper exports in 1985 were no greater than in 1984, when they approximated 113,000 tons. Pepper consumption globally has been exceeding production for several years, necessitating drawdown of stock in order to satisfy demand. During 1985 the shortfall between demand and output was aggravated by unfavorable growing conditions in several countries, notably Indonesia and India. In addition, growers in Malaysia have been shifting from pepper into more remunerative crops, such as cocoa, and those in Brazil have neglected to both make new plantings and cultivate existing plantings because of a credit crunch and high production costs.

The inevitable consequence of limited output and shrinking stocks is rising prices. In January 1985 the average monthly spot price in New York for Lampong black was $1.115 per pound, while a year later it was $2.044. Similarly, Brazilian black advanced from $1.08 per pound in January 1985 to $1.976 a year later.

More than 27,400 metric tons of unground black pepper and more than 4,700 tons of unground white were imported into the U.S. in 1985, compared with 34,500 tons and 3,600 tons, respectively, during 1984. About 45 percent of the black variety came from Brazil, with Indonesia contributing 36 percent and India another 15 percent. Indonesia also supplied almost 80 percent of the unground white, Brazil roughly 11 percent, and the People's Republic of China, 4 percent.

Total U.S. exports of pepper, black and white combined, amounted in 1985 to 760 metric tons, up 6.6 percent from 1984. Canada was the largest single recipient, taking almost one-eighth of the total. Mexico, the Netherlands, and Saudi Arabia took 10 percent each, and the Republic of Korea another 9 percent.

The outlook for worldwide supply in 1986 is brightened by the prospect that India's bumper harvest in the 1985–86 season will ease the condition of excess demand, and that Indonesian production promises soon to return to its earlier level. Should both events come to pass, the rate of increase in prices will at least decelerate and may even reverse itself. On the other hand, two events in early 1986 have operated further to restrict domestic supply: all shipments from Indonesia are to be detained for inspection ("blocklisted") at U.S. ports because of salmonella contamination, and shipments from India have been blocklisted because of discovery of the toxic pesticide EDB.

World Exports of Pepper (Black & White) and Prices

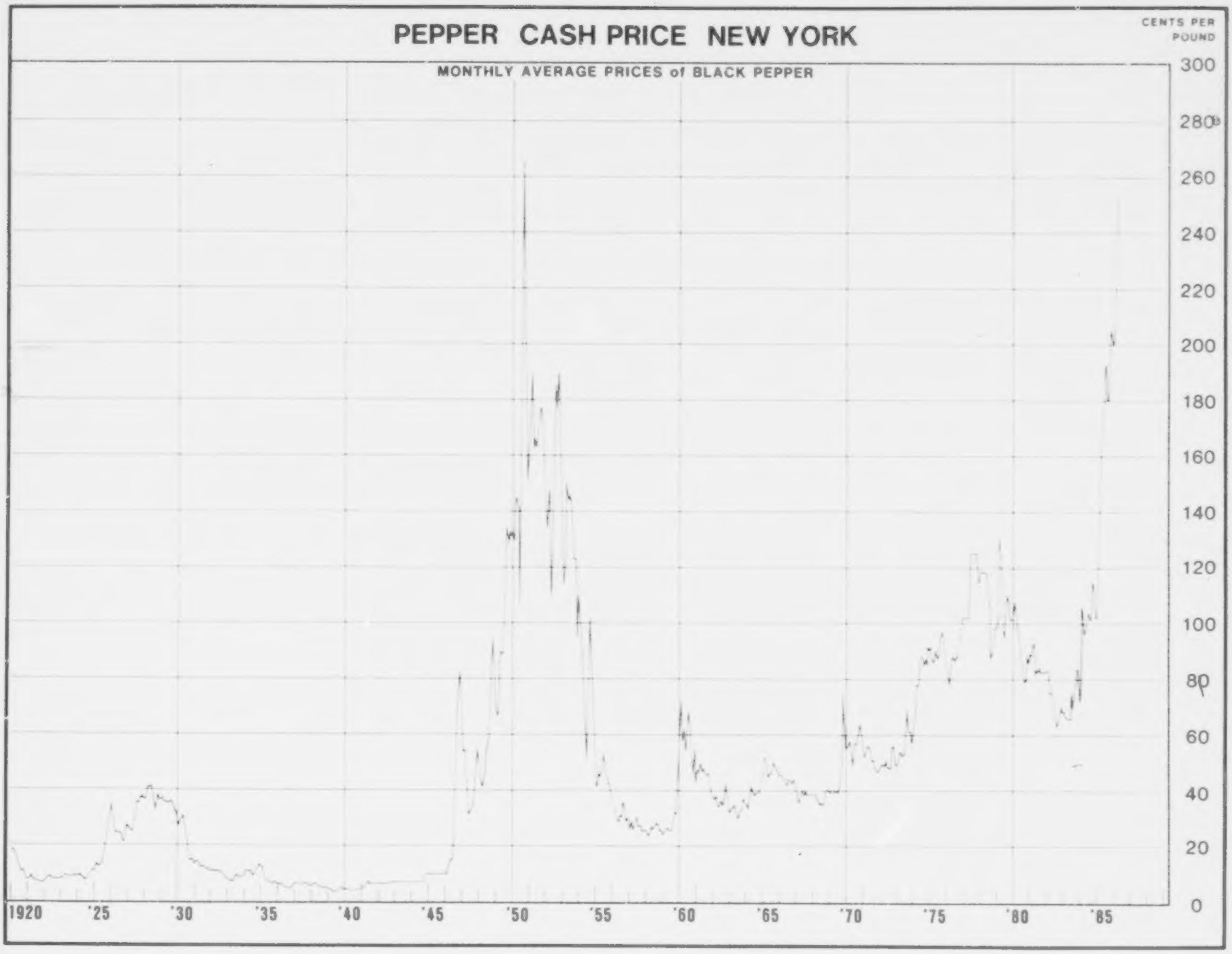
	Exports (metric tons)							New York Spot Prices (¢ per pound)					
								Indonesian		Brazilian		Indian	
Year	Brazil	India	Indonesia	Singapore[2]	Madagascar	Sarawak	Sri Lanka	Lampong Black	Muntok White	Black	White	Malabar Black	Tellicherry[3]
1974	15,491	28,569	15,188		2,241	28,933	337						
1975	17,944	24,399	14,525		3,461	29,815	96						
1976	19,986	17,813	29,481		2,958	34,850	10						
1977	17,099	25,892	30,856		3,748	26,795	635						
1978	29,505	19,370	37,090	40,904	1,566	30,780	1,205						
1979	25,186	20,545	24,986	38,395	1,894	36,118	876	93.7	132.6	91.9	129.7	93.9	112.2
1980	31,964	26,795	29,345	33,233	1,674	30,709	945	87.6	120.9	83.3	116.3	87.6	102.5
1981	46,895	18,636	33,996	30,098	1,440	28,696	2,042	68.8	101.5	62.3	100.0	80.4	103.8
1982	44,539	20,454	36,327	26,459	1,796	25,010	1,238	66.3	84.8	62.1	84.7	69.2	83.7
1983	30,363	27,982	45,061	N.A.	2,801	23,481	1,120	72.1	96.7	65.5	96.2	76.0	86.5
1984[1]	36,499	21,000	33,817		2,804	16,502	2,202	98.6	153.9	96.5	152.8	98.9	115.2
1985[1]								169.6	190.6	167.4	190.4	169.6	185.3

[1] Preliminary. [2] Reexports. *Source: Foreign Agricultural Service, U.S.D.A.* *T.486*

United States Imports of Pepper from Specified Countries In Metric Tons

	Black Pepper										White Pepper						
Year	Brazil	Mexico	Sri Lanka (Ceylon)	Spain	India	Indonesia	Malaysia	Singapore	China	Total	Brazil	China	W. Germany	Indonesia	Malaysia	Singapore	Total
1975	6,436		41		6,708	4,613	4,487	773	10	23,156	170	—		1,514	63	59	1,813
1976	6,609		—		359	11,774	4,037	1,321	3	24,128	53	—		2,118	56	128	2,362
1977	5,282		157		4,890	9,466	3,140	478	—	23,540	40			2,765	42	63	2,920
1978	10,472		186		1,880	10,595	2,293	604	6	26,142	285	—		1,994	64	28	2,382
1979	9,704		281	—	627	10,898	2,644	156	61	24,482	414	10	—	2,159	51	94	2,756
1980	10,075	131	3,194														
1981	14,716	75	2,503														
1982	14,887	10	172	—	848	11,620	172	63	3	27,811	423	1	5	2,194	—	95	2,721
1983	13,047	—	256	—	2,498	12,327	25	120	3	28,346	571	17	6	2,460	—	65	3,130
1984	10,369	3	158	34	4,024	9,814	131	322	378	27,421	246	260	10	3,805	100	100	4,762
1985[1]	12,227	3	158	34	4,024	9,814	131	322	378	27,421	246	260	10	3,805	100	100	4,762
1986																	

[1] Preliminary. *Source: Foreign Agricultural Service, U.S.D.A.* T.487



Average Black Pepper Prices in New York In Cents Per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1973	49.3	52.0	54.0	53.0	52.5	53.0	65.0	70.0	61.0	61.0	57.5	61.0	57.4
1974	64.0	70.0	78.0	78.0	85.0	88.0	88.0	85.0	87.5	85.5	92.0	91.0	82.7
1975	91.5	87.0	86.0	90.0	89.0	87.5	88.5	95.0	97.0	94.0	87.5	85.0	89.8
1976	81.0	79.0	77.5	88.0	88.0	87.0	87.5	87.5	N.A.	N.A.	N.A.	102.0	86.4
1977	102.0	102.0	102.0	102.0	125.0	125.0	125.0	125.0	125.0	125.0	114.5	N.A.	115.7
1978	118.5	118.5	118.5	118.5	117.5	109.0	107.5	88.0	88.5	95.5	98.5	98.5	106.4
1979	105.0	N.A.	130.0	N.A.	N.A.	95.0	97.0	110.0	108.0	108.0	102.0	101.3	106.3
1980	108.0	101.0	96.3	93.0	87.0	84.3	82.8	79.0	79.0	88.0	86.5	89.3	89.5
1981	88.5	93.3	92.0	81.0	83.0	82.3	84.0	82.5	82.3	82.3	82.5	82.5	84.7
1982	82.5	82.5	75.0	75.0	70.0	69.0	67.0	63.0	69.0	70.5	68.5	68.3	71.7
1983	68.3	66.5	66.3	65.5	65.5	65.5	75.0	69.3	76.3	77.3	83.5	83.5	71.9
1984	105.7	102.0	95.7	97.0	100.7	102.0	103.7	101.3	109.0	115.3	107.3	102.3	103.5
1985	114.0	124.3	145.0	173.3	175.7	190.7	192.7	180.0	180.0	193.0	205.0	200.0	172.8
1986	205.3	221.0	253.3										

Source: Bureau of Labor Statistics (0289–0131); N.Y. Wall St. Journal T.488

Petroleum

Worldwide demand for crude oil, which had turned up modestly in 1984, resumed during 1985 the downward trend that began in the late 1970s. At the same time, and despite the efforts of Saudi Arabia to restrict total output, production of crude oil increased, as both OPEC and non-OPEC producers strove to maintain their respective shares of the shrinking market. The inevitable result of diminished demand and enlarged supply was a sharp break in both posted and unofficial prices, a break which lowered the spot prices for certain grades of crude to as low as $16 per barrel at year's end, almost 40 percent below the average price prevailing 12 months earlier.

Behind the decline in demand were two fundamental factors which promised to persist in the years just ahead: conservation and growing reliance upon alternative sources of energy; an additional but probably short-lived cause for diminished demand in 1985 was sluggish economic growth in the U.S. and western Europe. Behind the growth in supply were continuing discoveries of new petroleum reserves and urgent efforts by many oil-producing countries to sell a greater volume in the face of falling prices and, thereby, maintain their earnings of badly needed foreign exchange.

In the U.S., petroleum consumption averaged 15.7 million barrels per day, little changed from 1984. Domestic production was slightly higher than the year before, averaging 8.9 million barrels per day, the highest since 1973. The mild increase in output, coupled with essentially flat demand, meant that U.S. imports of petroleum declined a bit, from an average of 3.4 million barrels per day in 1984 to 3.2 million barrels in 1985. Of greater significance, none of the U.S.'s major foreign suppliers during 1985 was a Middle Eastern State and several—notably, Mexico, Canada, and the U.K.—were not members of OPEC. As a dramatic example of the change, daily imports from Saudi Arabia in 1985 averaged only 93 million barrels versus 325 million the year before.

The dip in U.S. consumption of crude oil in 1985 occurred in the face of price reductions for most refined petroleum products and continued growth in the U.S.' energy demand, a growth largely satisfied by other sources of energy. One painful consequence of this development was a further reduction in domestic exploration, in usage of rotary rigs, and in sales of oil-well equipment.

At the end of December 1985, the U.S.' stock of crude oil and petroleum products amounted to 1.52 billion barrels, compared with 1.56 billion at the close of 1984. The Strategic Petroleum Reserve held an estimated 493 million barrels, up 9.3 percent from a year earlier. Total output of finished motor gasoline in the U.S. averaged 6.40 million barrels per day, down from 6.45 million in 1984.

Gasoline imports continued their uninterrupted rise since 1980, increasing from an average 299,000 barrels per day in 1984 to 378,000 in 1985. For well-known reasons, the fraction of unleaded gasoline to total gasoline supplied to U.S. consumers continued to rise, increasing to 64.9 percent in 1985 from 59.6 percent in 1984, and 27.5 percent in 1977.

Both domestic output and imports of distillate fuel oil fell during 1985, a function in substantial part of conservation practices and usage of alternative fuels. At year's end, however, there were predictions that if crude-oil prices remained at their new low levels for very long, many consumers who had switched to natural gas or coal would switch back to fuel oil.

Looking ahead to 1986, forecasters were generally agreed that in the near term there would be no sharp resurgence in petroleum's world price. Opinions were more mixed about the prospect of further steep reductions in prices, but the majority appeared to believe that $14–$15 per barrel was the likely floor for some time to come.

World Production of Crude Petroleum, by Specified Countries In Thousand Barrels Per Day

Year	Algeria	Canada	China	Libya	Iran	Iraq	Kuwait	Nigeria	Mexico	Indonesia	Un. King.	USSR	Saudi Arabia	United States	Venezuela	World Total
1978	1,161	1,313	2,082	1,983	5,242	2,563	2,131	1,897	1,209	1,635	1,082	11,185	8,301	8,707	2,166	60,057
1979	1,154	1,496	2,122	2,092	3,168	3,477	2,500	2,302	1,461	1,591	1,568	11,460	9,532	8,552	2,356	62,535
1980	1,012	1,435	2,114	1,787	1,662	2,514	1,656	2,055	1,936	1,577	1,622	11,773	9,900	8,597	2,168	59,538
1981	805	1,285	2,012	1,140	1,380	1,000	1,125	1,433	2,313	1,605	1,811	11,907	9,815	8,572	2,102	55,901
1982	710	1,271	2,045	1,150	2,214	1,012	823	1,295	2,748	1,339	2,065	11,967	6,483	8,649	1,895	53,252
1983	660	1,356	2,120	1,105	2,440	1,005	1,064	1,241	2,689	1,343	2,291	12,027	5,086	8,688	1,801	52,993
1984[2]	638	1,436	2,269	1,087	2,175	1,209	1,157	1,419	2,750	1,466	2,495	11,878	4,663	8,879	1,813	54,130
1985[1]	642	1,460	2,428	1,050	2,192	1,455	1,015	1,471	2,740	1,252	2,559	11,795	3,388	8,920	1,671	53,343

[1] Estimate. [2] Preliminary. *Source: Energy Information Administration*

T.489

United States Crude Oil[1] Supply & Disposition

		Supply												
		Field Production		Imports			Stock Withdrawal[3]		Unaccounted for Crude Oil	Disposition		Ending Stocks[2]		
Yearly Average		Total Domestic	Alaskan	Total	SPR[4]	Other	SPR[4]	Other		Refinery Inputs	Exports	Total	SPR[5]	Other Primary
		Thousands barrels per day										Million barrels		
1980		8,597	1,617	5,263	44	5,219	− 45	− 52	34	13,481	287	466	108	358
1981		8,572	1,609	4,396	256	4,141	−336	46	83	12,470	228	594	230	363
1982		8,649	1,696	3,488	165	3,323	−174	38	71	11,774	236	644	294	350
1983		8,688	1,714	3,329	234	3,096	−234	20	114	11,685	164	723	379	344
1984		8,879	1,722	3,426	197	3,229	−195	− 4	185	12,044	181	796	451	345
1985		8,920	1,799	3,216	118	3,098	−117	68	204	12,025	204	812	493	319
1986	Jan.	8,942	1,822	3,329	51	3,277	− 35	−426	788	12,375	159	826	494	332
	Feb.	8,940	1,823	3,005	24	2,981	− 35	—	241	11,921	162	827	495	332
	Mar.	8,939	1,824	3,194	52	3,142	− 52	−280		11,596		838	497	341

[1] Includes lease condensate. [2] Stocks are totals as of end of period. [3] A negative number indicates an increase in stocks and a positive number indicates a decrease. [4] Strategic Petroleum Reserve. [5] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis levels. *Source: Energy Information Administration* T.489a

Production[1] of Crude Petroleum in the United States In Millions of Barrels of 42 Gallons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	268.9	252.4	269.6	260.5	267.7	256.6	265.0	260.8	258.6	264.5	254.9	266.8	3,146
1981	264.7	240.9	267.0	256.7	263.5	258.9	263.5	266.1	258.1	265.4	257.6	266.1	3,129
1982	263.8	243.7	268.7	257.7	269.2	259.4	268.4	267.6	261.0	269.7	260.9	266.5	3,157
1983	269.6	245.2	269.7	263.3	267.6	260.0	267.7	269.1	263.5	271.9	263.1	260.3	3,171
1984	274.9	257.4	268.8	265.9	277.6	265.6	275.4	273.1	269.8	276.1	269.4	275.8	3,250
1985[2]	276.8	250.0	276.7	265.3	278.0	268.9	276.0	275.8	266.2	277.2	268.0	276.8	3,256

[1] Represents oil transported from producing properties, plus that remaining on properties & consumed on leases. [2] Preliminary. *Source: Bureau of Mines* T.500

United States Production of Gasoline[1] In Millions of Barrels

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	217.5	200.2	203.4	189.5	196.8	198.1	201.8	201.4	192.4	191.2	194.9	206.9	2,394
1981	209.1	177.3	193.3	184.2	191.0	187.7	199.8	206.2	198.0	200.2	197.7	205.0	2,349
1982	191.8	165.7	186.5	183.4	196.7	203.5	210.7	200.1	196.5	194.9	188.9	203.2	2,322
1983	188.7	164.3	183.7	186.7	199.0	200.6	208.8	203.7	199.3	192.7	199.7	196.1	2,323
1984	187.7	184.1	197.6	196.4	207.0	199.6	200.9	199.5	196.2	198.7	202.1	201.4	2,371
1985[2]	183.0	165.7	187.9	190.4	203.2	203.7	210.6	212.2	190.3	197.6	195.1	206.7	2,346

[1] Gasoline and naphtha from crude petroleum and natural gasoline used at refineries. [2] Preliminary. *Source: Bureau of Mines* T.502

United States Domestic Consumption of Gasoline In Millions of Barrels

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	196.8	192.4	199.6	204.9	209.8	200.9	210.2	207.3	196.5	207.8	187.9	206.3	2,421
1981	200.1	177.1	196.4	199.1	205.9	212.0	212.7	206.9	200.6	204.9	191.9	207.9	2,416
1982	185.5	174.0	201.2	207.7	207.1	206.1	211.4	206.1	196.9	198.8	197.6	203.6	2,396
1983	187.8	168.9	212.5	194.4	205.8	210.8	210.7	216.0	202.8	205.2	198.8	212.9	2,427
1984	194.6	181.4	202.8	201.1	214.7	214.1	212.5	220.9	198.3	209.2	204.7	203.7	2,458
1985[1]	197.0	183.1	206.2	208.8	218.9	210.0	217.8	225.4	200.0	215.2	204.2	210.2	2,497

[1] Preliminary. *Source: Bureau of Mines* T.503

Stocks of Finished Gasoline on Hand in the United States, at End of Month In Millions of Barrels

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1980	264.9	277.3	285.9	275.1	266.1	267.7	263.8	262.2	261.0	249.1	259.9	213.5
1981	229.1	232.4	234.5	225.2	214.8	196.1	187.9	190.9	193.4	193.1	203.3	206.2
1982	215.9	211.2	200.7	181.0	175.6	179.5	185.0	187.6	193.3	194.6	191.9	196.8
1983	210.0	209.2	185.4	185.4	188.0	185.4	192.3	187.4	191.8	189.5	198.4	187.8
1984	188.0	199.3	204.8	209.7	212.7	206.5	202.2	188.3	196.5	195.5	201.2	207.9
1985[1]	200.4	192.6	188.9	184.4	183.6	188.6	194.0	190.0	189.5	181.3	184.2	191.9

[1] Preliminary. *Source: Bureau of Mines* T.504

PETROLEUM

Crude Petroleum Refinery Operations Ratio[1] In Percent of Capacity

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1979	86	84	83	84	84	86	87	86	84	83	84	85	85
1980	82	80	77	76	75	77	74	73	74	71	73	76	76
1981	72	71	68	66	67	68	67	71	68	67	68	69	69
1982	67	65	66	66	69	75	75	71	74	71	71	70	70
1983	68	65	66	70	72	75	75	74	78	73	75	70	72
1984	73	76	75	75	77	77	76	78	78	76	77	76	76
1985[2]	75	74	74	76	78	79	81	78	77	78	80	81	78

[1] Based on the ratio of the daily avg. crude runs to stills to the rated capacity of refineries per day. [2] Preliminary. *Source: Bureau of Mines*

T.496

Production of Major Refined Petroleum Products in Continental U.S. In Millions of Barrels

Year	As-phalt[2]	Avia-tion Gasol	Fuel Oil Dis-tillate	Fuel Oil Resid-ual	Gaso-line[4]	Petro-Chemical Feedstocks	Special Naph-thas	Miscel. pdt's.	Jet Fuel	Kero-sene	Liquified Gases[7] (For Fuel)	Lubri-cants	Liquefied Gases[3] Total	Liquefied Gases[3] at L.P.G.[5]	Liquefied Gases[3] at L.R.G.[6]
1979	168.8	13.7	1,151	615.6	2,515	252.1	36.6	42.7	369.2	66.8	84.7	71.0	568.0	443.9	124.1
1980	141.2	12.8	974.1	578.4	2,394	254.6	36.5	38.5	365.6	50.1	87.0	65.1	561.8	440.9	120.8
1981	123.5	11.5	953.8	482.1	2,349				353.2	43.6		60.6	573.4	458.6	114.8
1982	119.4	8.9	951.3	390.4	2,322				357.0	42.0		51.6	557.5	459.0	98.5
1983	135.7	9.2	896.5	310.9	2,323				373.2	40.0		53.8	599.2	479.6	119.6
1984	141.3	9.1	981.2	326.2	2,371				414.3	41.8		58.3	620.9	488.2	132.7
1985[1]	145.4	8.6	978.6	318.5	2,346				425.7	38.7		53.0	621.8	483.5	138.3

[1] Estimated. [2] 5.5 barrels = 1 short ton. [3] Includes ethane & ethylene. [4] Finished. [5] Gas processing plants. [6] Refineries. [7] Liquefied refinery gases. *Source: Bureau of Mines*

T.490

Stocks of Petroleum & Products in the United States on January 1 In Millions of Barrels

Year	Crude Petro-leum	Strate-gic Reserve	Refined Products Total	As-phalt[2]	Avia-tion Gasol.	Fuel Oil Distil-late	Fuel Oil Resid-ual	Finished Gasoline	Petro-Chemical Feedstocks	Jet Fuel	Kero-sene	Liquefied Gases[3]	Lubri-cants	Road Oil	Wax[4]	Unfinished Oils (Net)[5]
1980	430.3	91.2	778.6	18.9	2.7	228.7	95.6	239.9	4.0	38.5	15.8	110.7	12.5	.3	.7	117.7
1981	482.9	107.8	745.3	18.8	2.3	205.4	91.5	213.5	5.9	42.4	11.4	128.0	13.6	.3	.5	
1982	593.8	230.3	712.5	19.6	2.7	191.5	78.0	206.2		41.1	11.0	134.7	14.3			176.8
1983	643.6	293.8	628.3	15.9	2.3	178.6	66.2	196.8		36.8	10.4	94.0	12.5			158.1
1984[1]	722.9	379.1	569.2	18.8	2.3	140.3	48.5	187.8		38.6	7.9	100.6	12.1			161.5
1985[6]	795.9	450.5	620.6	17.2	2.7	161.1	53.0	207.9		42.0	11.9	100.8	12.7			139.8
1986	812.0	493.3	555.8	21.2	2.1	143.9	50.7	191.9		40.2	7.7	72.7	11.7			148.7

[1] Preliminary. [2] 5.5 bbls. = 1 s. ton. [3] Includes ethane & ethylene at plants & refineries. [4] 1 bbl. = 280 lbs. [5] And misc. products. [6] Estimate. *Source: Bureau of Mines*

T.493

Stocks of Crude Petroleum[1] in the United States at Beginning of Month In Millions of Barrels

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1980	430.3	448.7	457.2	458.6	471.0	474.6	472.7	469.9	478.4	469.2	475.1	475.4
1981	482.9	486.4	494.2	513.8	531.7	543.8	547.8	559.0	546.7	555.2	578.0	588.5
1982	593.8	606.2	613.0	609.2	610.4	609.5	608.3	612.8	626.5	618.6	635.6	647.5
1983	643.6	660.4	669.4	666.8	678.9	679.4	683.0	675.8	700.5	707.7	716.2	712.7
1984	722.9	733.1	727.4	728.2	742.5	763.6	766.6	771.8	764.1	756.3	779.8	786.9
1985[2]	795.9	793.5	785.6	790.7	806.7	828.3	819.4	810.1	804.9	805.9	803.7	811.0
1986[2]	812.0											

[1] Total gasoline-bearing in the U.S. [2] Preliminary. *Source: Bureau of Mines*

T.501

U.S. Production of Residual Fuel Oil and Distillate Fuel Oils In Millions of Barrels

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	148.3	131.6	128.4	121.6	123.5	126.6	129.3	121.1	125.4	127.2	128.5	141.0	1,552
1981	142.6	122.4	121.1	112.1	114.0	112.0	110.6	120.5	117.1	115.4	118.3	129.8	1,436
1982	118.6	101.1	105.7	105.7	116.2	114.1	116.7	107.6	110.0	117.6	115.5	112.9	1,342
1983	102.1	83.8	87.7	93.3	104.8	101.2	104.5	103.1	107.0	108.1	105.8	106.0	1,207
1984	110.1	112.2	104.4	95.7	107.4	111.9	108.2	107.3	106.7	111.5	112.9	119.3	1,307
1985[1]	111.6	98.7	99.2	100.8	107.0	100.0	104.1	103.2	102.5	117.3	120.7	131.1	1,297

[1] Preliminary. *Source: Bureau of Mines*

T.505

Exports[2] of Petroleum and Products from the United States In Thousands of Barrels[1]

		Refined Products											
					Fuel Oil		Lubricants						
Year	Crude	Total Refined	Finished Gasoline	Kerosene (Incl. Range Oil)	Distillate	Residual	Grease	Oil	Wax	Coke	Asphalt	Liquified Gases	Misc Oils
1977	18,255	70,333	725	23	519	2,305	256	9,388	734	37,393	223	6,483	1,339
1978	57,728	74,329	470	40	1,202	4,634	288	9,399	543	40,438	138	7,238	171
1979	85,707	86,149	155	25	1,079	3,266	279	8,275	836	53,270	181	5,414	163
1980	104,908	94,289	494	32	1,238	12,232	246	8,322	736	49,872	247	7,826	210
1981	83,200	133,900	700		1,900	43,200	7,000						
1982	86,300	211,200											
1983	59,900	209,900											
1984[3]	66,200	196,900											
1985[4]	74,500	209,900											

[1] 42 gallons per barrel. [2] Includes shipments from Noncontiguous Territories. [3] Preliminary. [4] Estimate. *Source: Bureau of Mines* T.494

Imports[2] of Petroleum & Products into the United States In Thousands of Barrels (42 Gallons Per Barrel)

		Refined Products												
				Fuel Oil										
Year	Crude	Total Refined	As-phalt	Dis-tillate	Re-sidual	Finished Gaso-line	Jet Fuel	Kero-sene	Liquified Pet Gases	Lubri-cants	Petro-chemical Feed-stocks	Special Naph-thas	Un-finished Oils	Wax
1977	2,397,468	767,925	1,483	90,504	492,581	78,434	27,117	6,869	58,927	3,270	4,954	972	11,239	—
1978	2,329,700	722,900	907	63,288	494,640	69,518	31,346	4,031	40,889	2,978	2,994	1,750	9,913	—
1979	2,400,900	685,600	1,448	70,489	420,144	66,006	28,566	3,298	62,576	3,441	3,934	3,480	21,372	0
1980	1,946,200	582,500	1,414	51,900	343,600	51,071	29,521	3,690	56,711	2,667	10,245	3,354	19,659	0
1981	1,654,200	534,200		63,100	292,100									
1982	1,352,400	514,000		34,000	283,100									
1983	1,317,800	525,900		63,500	255,200									
1984[1]	1,368,800	620,200		99,400	249,200									
1985	1,302,600	538,300		72,500	187,000									

[1] Preliminary. [2] Includes shipments to Noncontiguous Territories. [3] Estimate. *Source: Bureau of Mines* T.495

Average Price of Crude Petroleum at Wells[1] Index (1967 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1977	262.9	274.2	270.0	271.0	271.0	271.8	270.8	273.3	276.1	278.6	282.9	288.1	274.2
1978	288.8	289.7	293.4	294.3	295.5	298.9	301.9	302.7	305.7	307.5	310.5	312.4	300.1
1979	316.4	322.3	324.2	326.2	335.7	356.4	370.6	385.7	422.1	436.7	450.4	470.8	376.5
1980	513.6	515.1	522.8	533.9	540.1	549.0	551.4	566.8	571.3	579.6	600.6	632.8	556.4
1981	704.4	842.7	842.8	842.5	839.9	815.9	798.9	796.8	796.8	788.2	785.9	787.2	803.5
1982	787.2	770.3	744.8	717.9	717.8	718.2	718.4	718.4	718.3	735.3	733.6	720.0	733.4
1983	719.7	692.9	678.0	678.0	678.0	677.9	675.7	675.1	675.7	675.7	675.6	674.4	681.4
1984	675.6	675.6	675.6	673.9	673.9	673.3	672.6	671.1	670.6	669.8	655.8	649.4	669.8
1985[2]	631.2	615.1	615.5	617.6	620.9	620.1	618.9	614.1	615.5	618.5	621.1	623.4	619.3
1986[2]	620.2	494.5											

[1] Buyers posted prices. [2] Preliminary. *Source: Bureau of Labor Statistics* (0561) T.497

Average Wholesale Prices of Gasoline[1] (Regular Grade—Leaded) Index (Feb. 1973 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1977	239.9	240.4	245.6	249.5	254.5	258.9	261.2	260.5	259.6	257.5	256.3	255.8	253.6
1978	255.1	252.8	252.0	253.0	255.5	260.5	266.4	271.3	275.1	278.1	277.5	282.7	265.0
1979	287.0	292.3	299.9	313.0	331.6	349.3	371.0	397.7	422.1	439.2	488.3	459.6	367.6
1980	481.1	517.5	560.4	585.4	595.5	598.6	601.1	602.9	599.6	591.5	590.8	596.1	576.7
1981	607.5	632.9	683.2	694.7	690.4	685.6	677.4	668.4	666.4	666.1	661.7	657.7	666.0
1982	651.7	642.3	621.1	578.6	555.7	582.7	628.8	636.3	628.4	617.2	608.7	598.5	612.5
1983	576.7	551.4	533.5	515.3	537.2	559.5	566.6	571.2	566.3	559.2	548.2	535.8	551.7
1984	518.3	512.4	517.9	520.5	532.6	531.0	520.9	504.6	500.3	509.8	511.3	502.0	515.1
1985[2]	480.5	458.4	467.2	493.9	522.5	535.7	539.3	526.7	513.6	506.1	520.1	520.4	507.0
1986[2]	486.5	427.3											

[1] Excludes aviation. [2] Preliminary. *Source: Bureau of Labor Statistics* (0571–02) T.498

PETROLEUM

High, Low & Closing Prices of December Crude Oil Futures in New York In Dollars Per Barrel

Year of Delivery		Year Prior to Delivery Oct.	Nov.	Dec.	Delivery Year Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Life of Delivery Range
1984	High	—	29.75	29.55	29.60	30.50	30.56	30.42	31.60	30.89	30.34	30.29	30.02	29.92	28.87	31.60
	Low	—	28.60	27.50	28.20	28.85	30.05	30.15	30.10	29.62	28.01	28.31	29.23	26.93	28.30	26.93
	Close	—	29.00	28.20	29.15	30.03	30.35	30.15	30.85	30.25	28.19	29.72	29.89	28.46	28.44	—
1985	High	29.50	27.93	27.20	25.95	26.50	27.60	28.60	26.65	26.25	26.49	27.68	28.65	30.40	31.82	31.82
	Low	26.99	26.56	25.91	23.90	25.00	25.90	26.55	26.10	24.58	24.93	25.60	26.12	27.84	29.93	23.90
	Close	27.66	26.72	25.91	25.35	25.45	27.42	26.77	26.50	25.50	25.66	27.40	28.63	30.38	31.72	—
1986	High	25.60	26.45	25.66	22.05	19.23	15.85	14.85								
	Low	23.80	24.74	22.18	19.15	15.05	11.69	11.20								
	Close	25.33	24.74	22.21	19.19	15.44	11.69	12.82								

Source: N.Y. Mercantile Exchange T.502a

Month End Open Interest of Crude Oil Futures in New York In Contracts

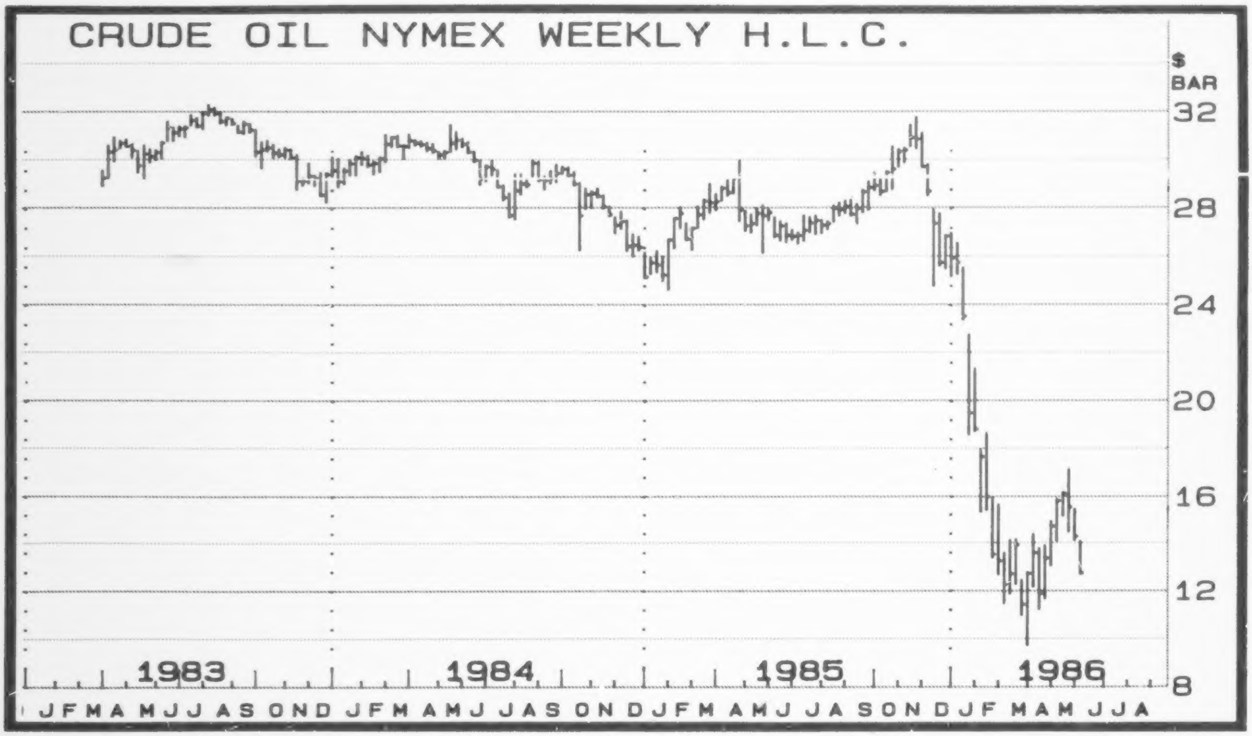
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1984	23,168	27,650	28,142	26,647	23,970	28,635	37,349	32,245	32,236	37,613	39,896	49,201
1985	63,458	57,479	44,532	45,875	50,450	57,820	52,134	53,743	64,731	64,981	58,099	61,161
1986	66,522	64,007	72,083	92,863								

Source: N.Y. Mercantile Exchange T.502b

Volume of Trading of Crude Oil Futures in New York In Thousands of Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1984	108.7	130.7	121.5	106.2	136.4	134.5	154.9	200.4	111.2	243.3	174.7	217.7	1,840.3
1985	385.3	263.3	298.5	272.6	290.1	342.2	329.8	269.7	339.8	365.9	337.9	385.1	3,979.2
1986	520.1	490.9	560.0	687.7									

Source: N.Y. Mercantile Exchange T.502c



Plastics

Shipments of plastics from domestic plants during 1985 were valued at an aggregate of more than $21.5 billion, up about 4 percent from 1984 (in constant dollars). More than half the output was used in packaging and building-construction, with the remainder divided among such diverse industries as furniture and fixtures, automobiles, toys and electronics. The uptick in 1985 was directly derived from growing demand for plastics by firms in those and other industries. Despite rising demand and output in the plastics industry, total employment fell by more than 4 percent, compared with 1984; the number of production workers, however, was unchanged for the year.

Imports of plastics, which accounted for fewer than 4 percent of total domestic supply, rose by 16 percent in 1985 over 1984. Exports, on the other hand, fell by nearly 8 percent; exports amounted to 10.7 percent of total shipments, as against 11.6 percent the year before. The fall-off in exports has been attributed in part to a 20 percent increase in prices of exported plastics, in part to the entrance of Saudi Arabia into the world's markets, and in part to the strong American dollar and to slow growth or stagnation in markets where the U.S. has a strong presence.

On the presumption that the U.S. economy will continue to grow at the same or a faster pace than in 1985, it has been projected that shipments of plastic materials will grow another 4 percent during 1986. Imports are also expected to rise again, but—barring an unanticipated rate of adjustment throughout the world to the much reduced value for the dollar against major overseas currencies—exports are likely to fall even further.

World Production of Plastics and Resins[3] (Condensation, Polymerization, Etc.) In Thous. of Metric Tons

Year	Australia	Austria	Czechoslovakia	France	—Germany— East	West	Italy	Japan	Netherlands	Poland	Belgium	Hungary	USSR	United Kingdom	United States
1976	407	404	580	1,769	679	7,088	2,266	4,952	1,723	559	824	186	3,216	2,556	13,261
1977	480	430	738	1,834	734	6,270	2,538	4,978	1,783	583	1,471	144	3,300	2,710	11,232
1978	522	434	810	1,885	762	6,703	2,466	5,882	1,962	596	1,682	209	3,516	2,621	12,380
1979	618	437	853	2,220	779	7,255	2,562	6,964	2,012	571	1,969	289	3,504	2,647	13,866
1980	709	487	894	2,052	859	6,710	2,464	6,422	1,975	667	1,835	324	3,636	2,260	12,418
1981	700	504	913	2,480	998	6,600	2,154	5,936	2,393	588	1,940	307	3,696	2,051	13,664
1982	715	454	961		989	6,275	2,142	5,986	2,502	600	2,023	322	4,057	1,966	13,009
1983		550	1,004		1,045	7,031	2,436	6,504	2,777	526	2,246	337	4,392	1,800	14,790
1984[1]		613	1,034	2,694	1,057	7,408	2,731	7,424	2,641	600	2,374	377	4,500	1,900	15,505
1985[2]		625	1,075	2,900	1,050	7,700	2,700	7,400	2,500	590	2,500	390	4,700	1,800	

[1] Preliminary. [2] Estimate. [3] Refers to production of thermoplastic & thermosetting resins & plastic materials obtained by chemical transformation of natural organic substances or by chemical synthesis. *Source: United Nations* T.506

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PLASTICS

Production of Important Synthetic Plastics & Resin Materials in the U.S. In Millions of Pounds

Year	Phenolic Resins	Polyethlene & Copolymers	Polypropylene	Polystyrene & Copolymers	Polyvinyl Chloride & Copolymers	Year	Phenolic Resins	Polyethlene & Copolymers	Polypropylene	Polystyrene & Copolymers	Polyvinyl Chloride & Copolymers
1978	1,926	11,259	3,055	5,989	5,878	1982	1,398	12,548	3,515	5,609	5,397
1979	1,779	12,408	3,824	6,327	6,211	1983	1,460	14,053	4,457	6,254	6,256
1980	1,745	11,720	3,699	5,540	5,485	1984	1,656	14,621	5,216	6,857	6,828
1981	1,688	12,604	4,008	5,915	5,618	1985[1]	1,423	15,386	5,180	5,652	6,894

Note: Data included in the table does not cover all Plastics production. Various types of Plastics production of lesser importance are not included because statistics are not available on a consistent basis. Also, many individual firms do not make their production figures known. [1] Preliminary. *Sources: U.S. Tariff Commission, Bureau of Census*

T.507

Average Wholesale Price Index of Plastic Materials in the United States—1967 = 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
Plastic Resins and Materials (066)													
1980	270.4	272.1	274.5	287.6	288.4	287.6	285.7	281.5	276.5	276.1	276.2	274.1	279.2
1981	274.7	276.1	279.4	285.1	287.9	290.0	295.9	297.5	296.8	299.5	293.2	294.2	289.2
1982	286.1	297.3	285.5	286.0	283.2	282.1	280.9	282.2	281.6	281.6	281.4	281.4	284.1
1983	283.8	283.1	282.1	285.4	288.0	289.1	291.3	293.7	302.6	299.1	297.9	301.5	291.5
1984	305.2	305.0	306.2	307.8	310.6	311.1	310.6	310.3	311.8	309.4	309.0	306.2	308.6
1985	305.2	306.9	305.5	308.1	306.3	306.1	307.5	306.4	305.1	300.1	299.9	296.7	304.5
1986	297.1	301.1											
PE Resin, Low, Pkg. Firm (0662-0301.99)													
1980	257.2	260.9	N.A.	275.1	270.8	264.0	259.4	254.4	249.4	249.3	251.8	250.9	258.5
1981	251.5	251.2	252.5	263.0	263.0	263.7	280.7	N.A.	279.8	279.9	N.A.	247.3	263.3
1982	207.5	208.1	209.7	224.5	202.1	197.2	184.3	185.3	184.2	183.9	184.7	184.7	196.4
1983	204.9	205.2	193.9	215.4	215.4	N.A.	236.2	236.2	237.8	251.6	250.9	250.9	227.1
1984	272.1	272.6	272.1	272.1	272.1	272.1	272.1	272.1	272.1	272.1	272.1	272.1	272.1
1985	272.1	272.1	272.1	272.1	272.1	272.1	272.1	272.1	272.1	203.8	203.6	206.8	255.2
1986	224.7	224.7											
Thermoplastic Resins (0662) — Dec. 1980 = 100													
1981	100.2	101.0	102.6	104.6	105.8	106.6	109.3	110.1	109.7	110.5	107.2	107.6	106.3
1982	103.5	104.2	103.2	103.5	102.1	101.5	100.9	101.5	101.3	101.3	101.3	101.1	102.1
1983	102.4	102.1	101.5	103.4	104.7	105.2	106.3	107.3	111.6	109.6	108.8	110.6	106.1
1984	112.3	112.0	112.5	112.8	113.4	114.0	113.8	113.6	114.4	113.2	113.0	111.7	113.1
1985	111.1	111.7	111.5	111.3	111.9	112.3	111.9	111.4	110.6	108.3	106.4	106.4	110.4
1986	106.6	108.7											
Polystyrene Resin, Rubber Modified (0662-0602.99)													
1980	283.5	N.A.	278.8	291.4	291.9	293.2	288.0	287.6	282.1	286.0	287.3	289.4	287.2
1981	290.2	294.2	291.7	299.2	299.2	305.2	303.1	N.A.	N.A.	292.6	298.9	299.7	297.4
1982	297.8	297.8	297.8	N.A.	294.2	293.9	291.2	291.2	291.2	N.A.	291.0	290.9	293.7
1983	299.6	287.8	287.8	287.8	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	290.8
1984	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	302.5	301.6	300.8	300.2	298.9	298.2	300.7
1985	296.9	295.0	295.0	295.7	296.9	297.6	297.6	297.6	296.2	296.2	296.2	292.1	296.1
1986	307.3	307.3											
Thermosetting Resins (0663)—Dec. 1980 = 100													
1981	101.4	101.1	101.4	104.0	104.5	105.4	106.6	106.5	106.6	107.7	107.6	108.2	105.1
1982	108.0	107.9	108.1	108.1	108.0	108.6	108.7	108.8	108.9	108.8	108.9	109.2	108.4
1983	109.0	108.8	108.9	108.5	108.4	108.6	108.7	109.4	110.1	110.8	111.5	111.5	109.5
1984	112.2	112.7	113.1	113.3	116.1	114.6	114.4	114.6	114.5	114.4	114.2	114.2	114.0
1985	114.1	114.1	114.2	114.1	114.0	114.6	114.9	115.0	115.3	115.7	115.5	115.2	114.7
1986	115.3	115.0											
Phenolic Molding Compound (0663-0201.99)													
1980	239.7	239.7	244.3	249.9	251.3	251.3	250.4	240.2	240.2	240.2	240.2	240.2	244.0
1981	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	254.2	254.2	254.2	254.2	254.2	254.2	254.2
1982	254.2	254.2	254.2	254.2	254.6	254.6	254.6	254.5	254.5	254.5	254.5	254.5	254.4
1983	249.6	245.7	245.7	245.7	245.7	245.7	245.7	245.9	246.0	246.0	245.6	245.7	246.1
1984	245.6	245.8	246.3	252.1	259.5	260.2	259.4	259.4	259.7	259.6	259.2	259.2	255.5
1985	259.2	259.2	259.2	259.2	259.2	259.2	259.2	268.1	268.1	268.1	268.1	268.1	262.9
1986	268.1	267.3											

Source: Bureau of Labor Statistics

T.508

Platinum-Group Metals

Preliminary data indicate that worldwide mine production of platinum-group metals, or PGM, in 1985 amounted, in round numbers, to 7.4 million troy ounces. Half of that sum originated in the Soviet Union and another 43 percent in the Republic of South Africa. Proved reserves in the world are currently estimated at 1.2 billion troy ounces, of which more than four-fifths are in South Africa and another one-sixth in the U.S.S.R. The world's combined proved and unproved reserves are thought to be 3.3 billion ounces.

Production of PGM in the U.S. is on a small scale. Output from domestic mines totaled only 10,000 ounces in 1985. Production from primary refineries added another 10,000 ounces, and the output from secondary sources (toll- and nontoll-refined together) was roughly 1.3 million ounces. Domestic primary refined production emanated from just three firms, which derived from PGM as a by-product of copper refining. Secondary PGM was refined by about 20 companies. The bulk of domestic supply came from imports: approximately 4 million ounces came from abroad, 3.3 million of them already refined. Import reliance represented 92 percent of apparent consumption. Nearly half (45 percent) of imports came from the Republic of South Africa, 16 percent from the United Kingdom, and 13 percent from the Soviet Union. Stocks of PGM held by refiners, importers, and dealers at 1985's end totaled about 1.1 million ounces, some 15 percent fewer than at the end of 1984.

The principal end-usages of PGM in the U.S. during 1985 included: automotive (chiefly, in automobile catalytic converters), 46 percent; electrical and electronic, 17 percent; and dental and medical, 13 percent. Not only the automotive, but also the chemical and petroleum-refining industries used PGM primarily as catalysts. The other users applied them in ways that took advantage of the metals' chemical inertness and refractory properties.

On the demand side, apparent consumption at home was estimated at 3.2 million ounces during 1985, a volume only slightly below the figure for 1984. Total exports amounted to nearly 0.9 million ounces, 60 percent of them refined, also little different in magnitude from the prior year. Aggregate demand, defined as apparent domestic consumption plus exports, therefore was about 4.1 million ounces in 1985, compared with aggregate supply (domestic output plus imports) of roughly 5.3 million. As was to be expected, given these circumstances, the average dealer price for platinum in 1985 fell to $291 per ounce, or 18 percent below the comparable statistic for 1984; and the average dealer price for palladium was $107 in 1985 versus $148 in 1984, a year-over-year decline of almost 28 percent.

It is estimated that in 1986 domestic mine production of PGM will remain at 10,000 ounces and that apparent consumption in the U.S. will be little changed at 3.3 million ounces. As in prior years, most of the gap between domestic demand and supply will be filled by imports.

Beyond 1986, the prospect is for growth in demand, from a 1983 base, at the average annual rate of approximately 2.5 percent through 1990. An intermediate-term development which could affect PGM's world market price is the agreement by the members of the European Economic Community to introduce restrictions on automotive emissions, doing so in stages between 1988 and 1993. As things stand, the only commercially feasible way to implement the restrictions, which are broadly comparable with those in effect in the United States, is usage of the automobile catalytic converter. That device relies heavily for its effectiveness upon its content of platinum and rhodium, and to a less extent, palladium.

Futures Market

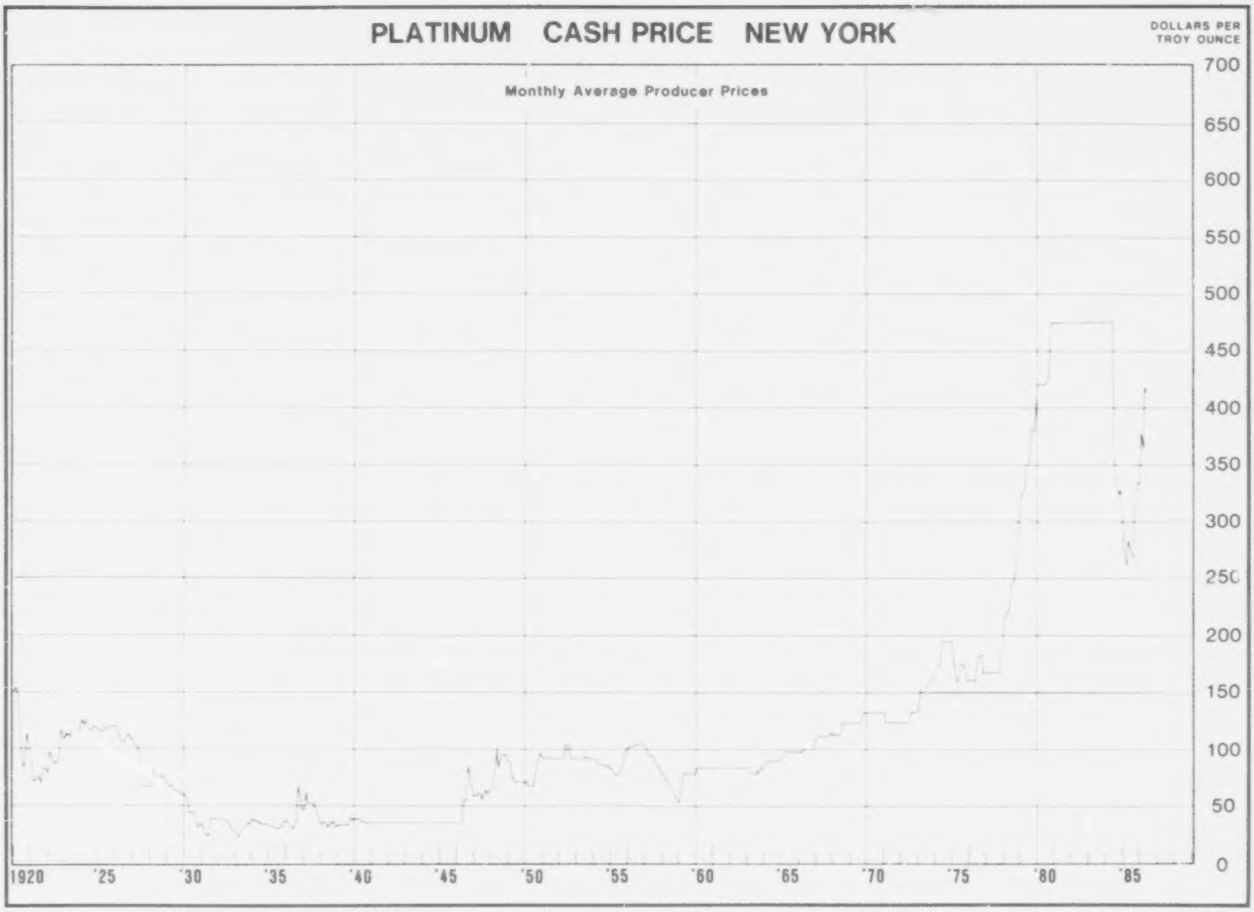
Both platinum and palladium futures are traded on the New York Mercantile Exchange (NYMEX).

World Mine Production of Platinum-Group Metals In Troy Ounces

Year	Australia	Zimbabwe	Finland	Canada	Colombia[3]	Ethiopia	Japan	South Africa	USSR	United States	Yugoslavia	World Total[1]
1979	9,645	—	1,643	197,943	12,933	108	34,637	3,017,000	3,200,000	7,300	5,916	6,487,125
1980	12,603	9,774	900	410,757	14,345	113	41,334	3,100,000	3,250,000	3,348	4,919	6,848,093
1981	14,989	7,500	3,601	382,658	14,804	125	36,269	3,110,000	3,350,000	7,318	3,601	6,930,865
1982	15,767	4,469	8,809	228,425	11,886	125	43,273	2,600,000	3,500,000	8,033	3,480	6,424,267
1983	13,900	3,200	4,469	167,019	10,303	125	58,582	2,600,000	3,600,000	6,257	3,300	6,524,061
1984[2]	14,000	3,350	4,200	348,000	10,000	125	55,300	2,900,000	3,700,000	15,000	3,350	7,053,026
1985[1]				350,000				3,200,000	3,700,000	10,000		7,400,000

[1] Estimate. [2] Preliminary. [3] Placer platinum. *Source: Bureau of Mines*

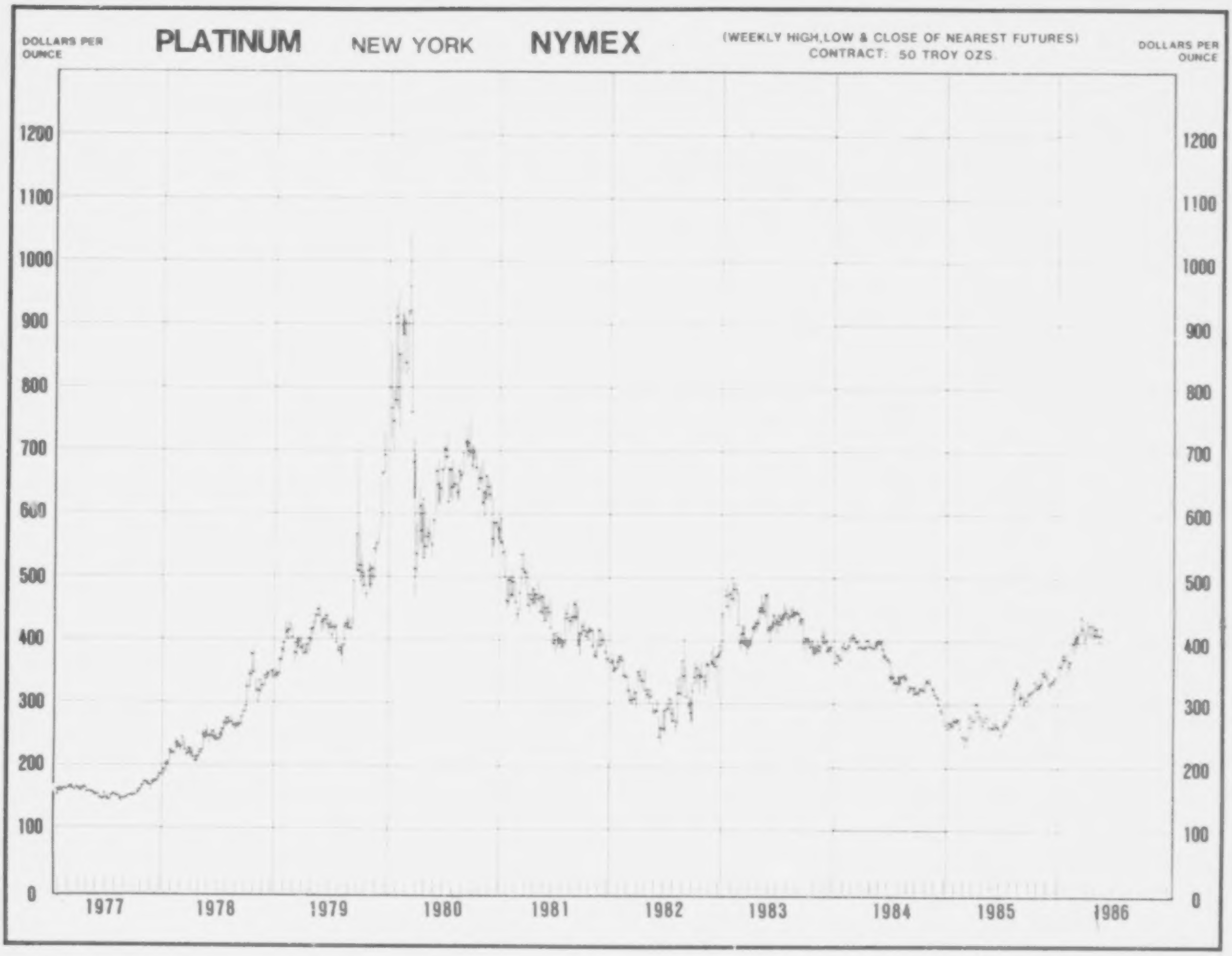
T 509


PLATINUM CASH PRICE NEW YORK

Platinum-Group Metals Sold to Consuming Industries in the United States In Thousands of Troy Ounces

	— Automotive —		— Chemical —		— Electrical —		Dental & — Medical —		Jewelry & — Decorative —		— Petroleum —		—All Platinum-Group Metals—			
Year	Platinum	Others[2]	Platinum	Others[2]	Platinum	Others[2]	Platinum	Others[2]	Platinum	Others[2]	Platinum	Others[2]	Platinum	Palladium	Other[2] Metals	Total
1973			239.0	334.1	117.4	551.1	27.9	136.3	22.4	38.9	123.6	20.3	658.5	1,012.5	160.9	1,833.9
1974	350.0	15.0	350.0	150.0	98.6	452.6	25.5	125.7	23.0	35.3	139.5	26.7	943.7	886.1	151.2	1,981.0
1975	273.0	97.0	148.8	166.9	73.6	153.1	17.1	115.9	22.9	29.5	108.0	5.4	698.6	541.5	68.6	1,308.7
1976	481.0	194.9	83.6	154.7	89.3	197.5	26.9	140.4	23.4	14.8	59.1	7.7	851.1	657.1	94.9	1,603.1
1977	354.3	125.9	84.4	196.6	90.2	254.5	27.1	113.9	34.7	22.1	74.8	13.6	789.8	700.5	102.0	1,592.3
1978	597.5	201.8	149.7	186.5	106.4	346.5	44.1	208.0	25.8	25.1	108.4	19.2	1,196.3	917.9	145.4	2,259.6
1979	803.2	248.3	98.6	264.9	115.8	457.4	27.1	244.9	27.7	21.6	170.0	27.9	1,408.9	1,132.6	214.5	2,756.0
1980	517.1	214.2	119.0	165.6	150.1	376.1	25.8	245.4	51.0	22.6	144.0	26.7	1,118.2	912.0	175.7	2,205.9
1981	446.7	160.6	78.1	152.4	111.7	388.3	18.7	255.8	27.6	19.5	88.3	22.9	872.6	889.2	158.8	1,920.7
1982	477.8	144.8	63.6	200.6	90.0	348.4	22.8	312.1	16.0	12.7	21.6	21.7	780.1	926.3	166.8	1,873.3
1983	508.5	191.8	65.4	99.8	74.7	404.8	16.7	261.7	10.3	10.6	38.0	51.1	796.7	921.8	195.4	1,914.0
1984[1]	722.0	350.3	73.5	108.7	98.9	453.7	18.6	349.0	9.3	9.1	28.0	92.7	1,028.7	1,255.9	184.7	2,469.3
1985[3]	—1,070—				—403—		—295—				—110—		1,119.2	1,033.8	172.4	2,325.4

[1] Preliminary [2] Palladium, iridium, osmium, rhodium, & ruthenium. [3] Estimate. *Source: Bureau of Mines* T.512



Average Merchant's Prices of Platinum in New York In Dollars Per Troy Ounce

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1972	122.50	122.50	122.50	122.50	122.50	122.50	128.00	132.50	132.50	132.50	132.50	132.50	127.13
1973	132.50	141.97	152.50	152.50	152.50	152.50	152.50	152.50	155.24	160.50	160.50	160.50	152.18
1974	162.68	172.50	172.50	172.50	174.55	195.00	195.00	195.00	195.00	195.00	195.00	195.00	184.98
1975	195.00	180.53	175.00	163.06	160.00	160.00	162.73	175.00	175.00	172.17	160.00	160.00	169.87
1976	160.00	160.00	160.00	160.00	160.00	163.54	175.60	182.50	182.50	182.50	167.00	167.00	168.39
1977	167.00	167.00	167.00	167.00	167.00	167.00	167.00	167.00	167.00	167.00	167.65	174.81	167.71
1978	186.55	206.58	217.07	220.00	220.00	227.73	237.89	241.74	250.23	253.18	284.00	300.00	237.08
1979	303.41	325.00	325.00	327.38	350.00	350.00	350.00	357.83	380.00	380.00	380.00	393.33	351.83
1980	420.00	420.00	420.00	420.00	420.00	420.00	420.00	425.24	475.00	475.00	475.00	475.00	436.77
1981	475.00	475.00	475.00	475.00	475.00	475.00	475.00	475.00	475.00	475.00	475.00	475.00	475.00
1982[1]	369.26	361.95	322.46	338.95	314.43	278.26	286.90	290.41	334.98	324.58	346.65	370.95	328.32
1983	441.07	468.34	400.17	410.38	446.69	420.23	431.63	438.30	431.93	399.87	389.33	399.70	423.14
1984	375.11	391.38	398.47	395.17	388.95	386.31	345.55	336.03	327.36	324.65	328.45	309.11	383.88
1985	274.24	269.14	260.72	283.63	269.00	264.00	268.73	308.75	311.42	323.00	334.29	333.87	292.34
1986	377.74	365.14	413.35	418.97									

[1] Prior to 1982 prices are for *producer* prices. *Source: American Metal Market* T 511

PLATINUM-GROUP METALS

Salient Statistics of Platinum and Allied Metals in the U.S. In Troy Ounces

Year	Net Import Reliance as a % of Apparent Consump	Production	Refinery		Stocks as of Dec. 31[1]				Imports for Consumption	Value of Imports Mil. $	Exports		
		Crude[5]	New Metal	Secondary Metal	Platinum	Palladium	Other	Total			Platinum	Other Groups[3]	Other[6]
1979	89	7,300	8,392	309,022	305,605	323,865	131,812	761,282	3,479,128	840.5	207,832	522,195	189,218
1980	87	3,348	2,300	330,923	502,185	353,002	118,074	973,261	3,501,782	1,177	289,454	302,457	173,053
1981	83	7,318	5,607	391,637	401,389	398,933	117,856	918,178	2,849,617	800.3	391,194	258,745	213,426
1982	81	8,033	7,078	344,160	604,632	384,184	117,812	1,106,628	2,493,706	553.9	175,805	262,764	423,576
1983	89	6,257	5,884	303,165	433,457	412,178	97,513	943,148	3,218,022	752.8	184,599	261,188	782,967
1984[2]	89	15,000	14,433	339,361	647,875	505,237	144,300	1,297,412	4,474,106	1,118.1	220,885	375,802	565,543
1985[4]	92	10,000	10,000	250,000	529,461	431,236	145,339	1,106,036	3,989,594	1,025.9	187,013	339,254	362,384

[1] In hands of refiners, importers, & dealers. [2] Preliminary. [3] Palladium, rhodium, iridium, osmium, ruthenium & osmium metals & alloys. [4] Estimate. [5] From crude platinum placers & byproduct platinum-group metals. [6] Ore & concentrates, waste, scrap & sweepings. *Source: Bureau of Mines*

T.513

High, Low & Closing Prices of April Platinum Futures in New York In Dollars per Ounce

Year of Delivery		Year Prior to Delivery											Delivery Year				Life of Delivery Range
		Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
1982	High	595.0	624.7	594.5	551.0	533.0	460.6	488.5	494.0	462.5	434.5	434.0	392.5	380.0	346.5	364.0	624.7
	Low	535.7	507.0	507.0	502.0	447.0	425.5	418.7	407.0	424.0	381.0	376.0	352.5	342.0	296.5	311.5	296.5
	Close	540.2	577.1	529.9	528.0	455.5	438.7	460.7	435.4	429.8	405.0	384.1	368.2	344.3	318.3	332.2	—
1983	High	429.6	390.0	400.0	356.0	329.5	333.0	358.1	415.0	392.0	385.0	405.0	499.3	502.0	428.0	433.0	502.0
	Low	388.0	342.6	352.0	318.0	263.0	280.5	271.5	291.0	285.2	320.0	352.0	393.0	396.3	376.5	393.0	263.0
	Close	395.0	357.2	352.0	315.2	306.4	303.3	333.1	294.4	355.1	384.3	392.6	498.7	396.3	392.6	424.0	—
1984	High	526.0	461.0	459.5	495.0	465.0	474.0	470.0	464.5	421.0	426.0	422.0	398.5	410.0	417.5	407.2	528.0
	Low	423.3	410.0	433.5	458.0	422.0	439.0	439.5	404.0	382.0	380.0	389.5	369.0	382.0	388.0	384.0	364.3
	Close	423.3	425.6	453.4	468.5	441.5	457.7	453.6	415.8	383.0	417.2	399.5	391.3	403.8	392.2	397.0	—
1985	High	438.5	447.5	440.0	427.5	433.5	402.0	370.5	352.2	345.0	350.0	328.0	289.5	282.0	290.0	308.0	447.5
	Low	415.0	422.0	414.0	411.5	401.0	343.0	350.5	335.0	327.8	322.0	291.0	265.5	244.5	236.0	263.5	236.0
	Close	433.5	426.0	417.4	426.2	402.9	349.7	361.3	336.1	331.7	323.0	293.0	280.5	249.3	281.4	281.5	—
1986	High	—	308.5	329.8	303.9	293.9	298.5	357.0	333.0	345.0	362.5	356.0	385.0	425.8	444.5	434.0	444.0
	Low	—	279.5	290.5	273.0	275.5	261.2	287.0	297.5	311.0	326.5	321.0	340.0	345.2	391.2	385.0	261.2
	Close	—	307.3	290.5	281.5	278.6	297.7	338.9	309.5	327.9	349.0	346.2	372.7	402.3	399.1	426.9	—
1987	High	430.0	448.5	446.0													
	Low	361.0	400.0	398.0													
	Close	409.4	412.9	430.3													

Source: N.Y. Mercantile Exchange

T.514

Month-End Open Interest of Platinum Futures in New York In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1980	8,200	8,409	6,209	5,434	6,369	7,943	7,797	8,286	14,239	12,140	12,026	11,911
1981	9,410	8,946	9,441	7,709	8,130	7,891	5,520	6,446	8,421	7,055	8,601	7,839
1982	6,278	7,524	8,686	8,302	10,326	9,337	11,137	12,853	14,141	13,002	15,547	15,620
1983	19,927	23,506	15,197	15,878	18,375	15,918	16,934	15,671	15,413	12,450	13,227	13,384
1984	12,692	13,912	13,805	15,244	15,852	17,254	15,775	15,766	17,288	14,826	14,753	15,525
1985	15,210	14,131	13,256	12,096	11,668	11,371	11,677	16,492	13,149	13,068	17,969	14,853
1986	18,163	20,490	19,938	15,768								

Source: N.Y. Mercantile Exchange

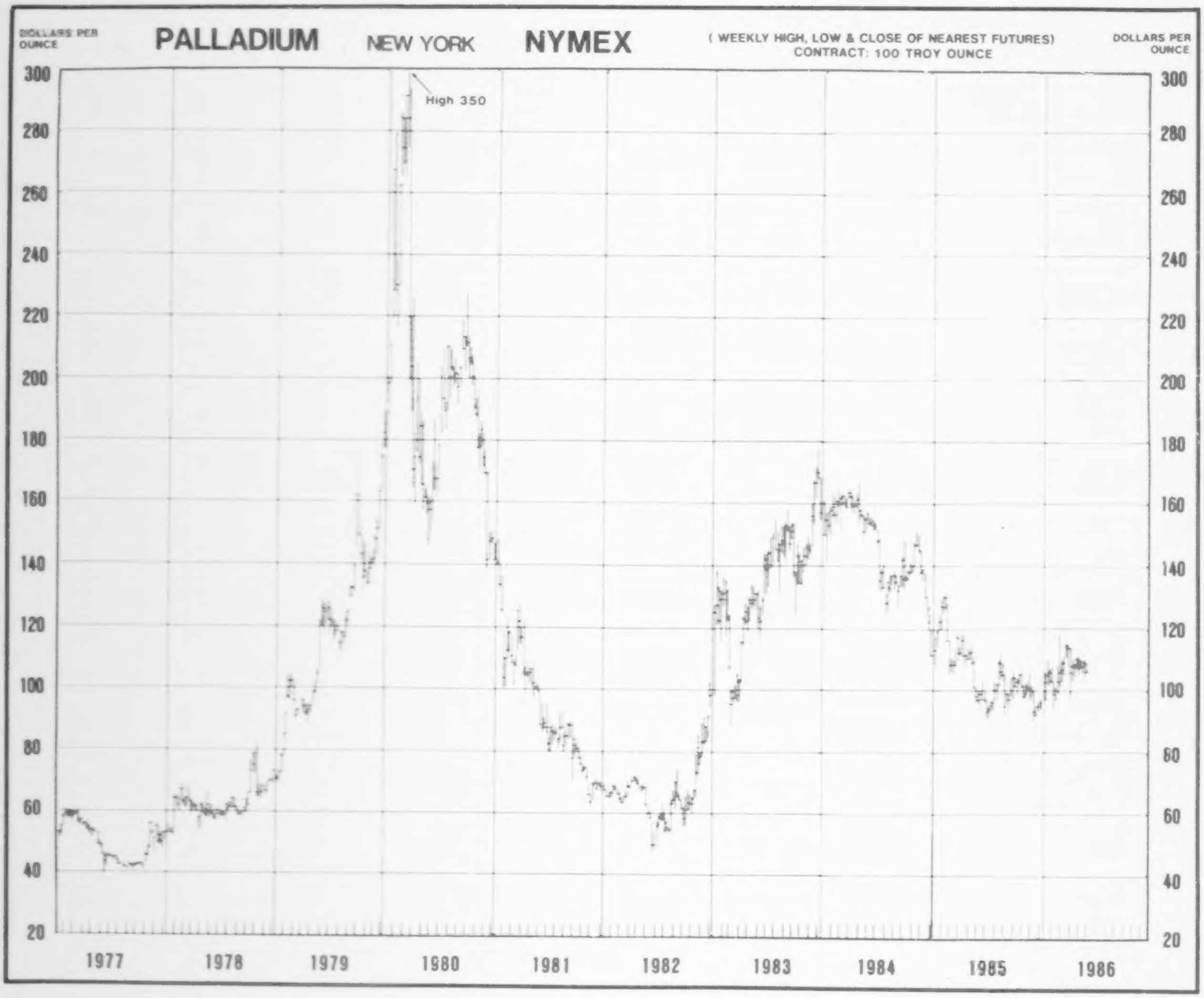
T.515

Volume of Trading of Platinum Futures in New York In Thousands of Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	35.2	28.5	41.7	21.4	26.6	37.6	40.8	26.7	59.7	41.0	34.8	35.9	429.7
1981	36.5	29.7	56.1	36.7	30.8	44.7	37.9	39.1	63.9	35.4	33.2	46.6	490.5
1982	32.5	29.5	48.4	42.4	33.1	46.6	55.8	76.9	84.8	70.8	70.0	78.1	669.0
1983	126.0	117.0	107.9	71.9	106.2	115.4	75.9	77.0	79.2	61.5	57.2	57.9	1,035.4
1984	44.7	43.7	68.9	54.5	44.9	53.8	55.2	38.4	52.2	35.9	38.3	40.7	571.1
1985	41.0	26.2	53.5	48.8	43.1	42.2	40.3	98.1	82.7	68.6	64.8	84.0	693.3
1986	101.3	114.7	139.8	100.3									

Source: N.Y. Mercantile Exchange

T.516



Average Dealer[1] Price of Palladium in the United States In Dollars Per Troy Ounce

Year	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1975	124.32	105.00	93.92	90.50	73.27	57.71	55.86	58.30	50.52	47.60	44.00	44.00	70.42
1976	42.00	39.62	37.56	38.50	41.58	48.50	55.75	50.28	53.25	52.99	59.20	52.38	47.63
1977	54.06	58.10	57.82	55.20	52.97	45.18	44.90	42.36	42.20	43.07	48.83	51.97	49.72
1978	55.10	64.86	64.18	59.33	60.82	60.42	59.53	61.86	60.09	71.58	70.74	73.25	63.48
1979	76.14	103.35	95.56	93.97	105.53	124.33	121.40	117.45	136.94	143.63	141.95	163.42	118.62
1980	220.00	262.80	259.83	194.79	169.74	169.56	199.55	203.88	212.74	204.72	185.85	155.69	203.10
1981	134.38	112.18	117.82	110.42	102.90	94.76	83.61	85.86	85.50	79.08	72.13	69.51	95.68
1982	67.70	67.53	66.99	69.43	68.51	59.27	57.35	57.76	64.50	59.99	74.03	86.14	66.60
1983	116.05	124.33	99.55	114.67	130.60	128.66	143.83	147.65	152.21	145.35	147.71	160.69	134.28
1984	157.30	161.10	159.26	161.03	156.25	154.07	140.98	135.83	136.94	140.07	146.47	136.72	148.84
1985[2]	NOT AVAILABLE						95	103	99		101	96	100
1986[2]	103	102	110	108									

[1] Based on wholesale quantities, prompt delivery. [2] Estimate. *Source: American Metal Market* T.510

Pork Bellies

Pork bellies, the layer of meat and fat from the underside of the hog, are cured and smoked to produce bacon. An average hog will yield two bellies, each weighing from about 8 to 18 pounds, depending upon the size of the animal when slaughtered. The bellies account for approximately 12 percent of a hog's live weight and a somewhat larger percentage of the total cut-out value. Profit margins for the hog processor reflect the total value of all pork products, including hams and loins as well as bacon. Even when the overall cut-out value is profitable, the price of any one of the products may be independently weak because of seasonally reduced demand or other reasons.

In general, futures prices for pork bellies trended lower during 1985, primarily reflecting larger-than-expected total meat supplies. Prices also tended to follow the hog market. Firm hog prices in the spring eroded during the summer. A bearish June USDA 50-state Hogs & Pigs report, combined with producers' holding hogs to very high weights to depress both the hog and pork belly markets through late summer. The Hogs & Pigs report showed larger-than-expected market hog numbers and larger March/May farrowings than anticipated. The September quarterly Hogs & Pigs report showed that farrowing intentions were down less than expected. Seasonally declining fall kills and improved retailer interest in hams for holiday features improved hog prices in the fourth quarter, but were of little help to pork belly prices.

Plentiful storage of discounted heavy-weight pork bellies pressured prices as the summer demand season approached. Heavy bellies were discounted more deeply than usual, and dampened speculative buying interest in the August 1985 futures contract, preventing the usual seasonal rise. Later in the year, week-to-week consumption of pork bellies was off at a sharper rate than a year earlier. Thus, while kills late in the year were below a year earlier, consumption was well below year-earlier levels and movement into storage was much higher because of the wide premium for futures over cash pork belly prices. Bacon slicings, a measure of consumption, in the first quarter of 1985 was nearly 5 percent above the like period of 1984. However, slicings in the second quarter of 1985 dropped nearly 10 percent from the year-earlier level. The 748.6 million pounds of bacon sliced in the first half of 1985 was 2.3 percent below the 766.3 million pounds sliced in the first half of 1984.

Futures Market

Pork belly futures are traded on the Chicago Mercantile Exchange.

United States Quarterly Sliced Bacon Production[1] In Millions of Pounds

Year	Retail	Commercial	Total	Year	Retail	Commercial	Total
1982	1,000.7	500.8	1,501.5	1984[2]	1,038.0	693.6	1,731.6
I	246.3	120.9	367.2	I	253.6	176.4	430.0
II	247.2	128.0	375.3	II	246.8	162.2	409.0
III	273.5	129.2	402.6	III	268.8	166.4	435.2
IV	233.7	122.7	356.4	IV	268.8	188.6	457.4
1983	1,113.6	562.8	1,676.4	1985			
I	248.6	127.7	376.2	I			
II	250.8	140.8	391.6	II			
III	260.6	152.1	412.8	III			
IV	353.6	142.2	495.7	IV			

[1] Smoked, dried or cooked. Under Federal Inspection. [2] Preliminary. *Source: Agricultural Marketing Service, USDA* T.517a

U.S. Frozen Pork Belly Storage Stocks (In Thousand Pounds, as of First of the Month)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1976	44,722	37,386	38,526	51,176	60,144	63,799	49,258	25,773	8,689	5,858	9,708	24,946
1977	42,906	38,338	36,364	52,806	69,539	80,658	62,695	29,901	9,640	5,241	4,230	20,642
1978	23,747	19,013	15,738	39,631	70,976	82,343	75,027	44,787	21,015	7,482	20,013	40,964
1979	54,367	39,432	37,172	57,744	69,689	86,065	78,935	53,373	21,800	11,077	17,739	42,156
1980	70,201	69,635	67,800	85,444	98,163	106,869	96,967	68,616	34,410	21,867	42,186	72,127
1981	97,365	90,181	94,661	104,357	125,469	132,568	117,795	72,998	36,094	16,228	18,060	35,058
1982	54,639	46,167	41,855	66,061	—	—	72,593	—	—	7,558	—	—
1983	31,292	33,592	33,400	44,304	54,510	64,671	63,468	48,409	26,642	15,672	20,047	52,924
1984	78,648	71,568	78,169	95,009	112,205	127,527	115,034	85,630	43,626	22,321	24,048	38,333
1985	57,361	53,623	51,633	68,315	83,836	96,040	88,367	61,397	35,764	20,158	29,787	47,427
1986[1]	51,314	47,633	51,218	62,400								

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.517

Wkly Fed. Inspected Hog Slaughter

1985[2] Week Ending	(In Thousand Head) 1985	1984	1983	1982
Jan. 1	1,238	1,350	1,204	1,428
7	1,295	1,418	1,457	1,881
14	1,679	1,708	1,564	1,656
21	1,615	1,625	1,561	1,643
28	1,528	1,577	1,519	1,623
Feb. 5	1,565	1,543	1,350	1,552
12	1,582	1,571	1,467	1,650
19	1,508	1,578	1,491	1,484
26	1,539	1,579	1,544	1,652
Mar. 5	1,608	1,656	1,646	1,698
12	1,635	1,791	1,584	1,676
19	1,638	1,691	1,546	1,663
26	1,647	1,681	1,558	1,705
Apr. 2	1,642	1,695	1,607	1,609
9	1,569	1,695	1,738	1,606
16	1,623	1,728	1,704	1,608
23	1,676	1,642	2,694	1,656
30	1,662	1,588	1,659	1,640
May 7	1,702	1,635	1,642	1,596
14	1,699	1,664	1,607	1,610
21	1,705	1,579	1,558	1,553
28	1,580	1,578	1,390	1,532
June 4	1,361	1,367	1,617	1,279
11	1,592	1,591	1,528	1,561
18	1,561	1,541	1,510	1,467
25	1,535	1,431	1,557	1,416
July 2	1,476	1,438	1,348	1,394
9	1,171	1,105	1,538	1,162
16	1,523	1,445	1,493	1,434
23	1,427	1,378	1,535	1,352
30	1,400	1,305	1,476	1,357
Aug. 6	1,474	1,382	1,540	1,398
13	1,556	1,406	1,535	1,391
20	1,524	1,409	1,473	1,424
27	1,531	1,479	1,613	1,400
Sept. 3	1,601	1,502	1,435	1,411
10	1,429	1,396	1,772	1,286
17	1,690	1,657	1,716	1,527
24	1,667	1,679	1,732	1,418
Oct. 1	1,681	1,679	1,841	1,501
8	1,644	1,699	1,844	1,482
15	1,686	1,701	1,895	1,536
22	1,620	1,754	1,844	1,599
29	1,654	1,736	1,927	1,614
Nov. 5	1,668	1,754	1,955	1,620
12	1,654	1,742	1,981	1,677
19	1,654	1,681	1,593	1,650
26	1,697	1,446	1,944	1,310
30	1,328	1,812	1,941	1,676
Dec. 3	1,656	1,792	1,804	1,523
10	1,566	1,692	1,465	1,588
17	1,655	1,687	1,350	1,278
24	1,153	1,238		
1986[2]				
Jan. 1	1,153	1,295		
8	1,250	1,679		
15	1,635	1,615		
22	1,654	1,528		
29	1,563	1,565		

Weekly Pork Belly Storage Movement

1985[2] Week Ending	Stocks[1] in Thousands of Pounds In	Out	On Hand	Net Movement
Jan. 5	2,407	1,008	50,546	+1,399
12	2,398	1,885	51,059	+513
19	1,561	2,242	50,378	−681
26	1,074	2,164	49,288	−1,090
Feb. 2	706	2,499	47,495	−1,793
9	377	2,302	45,570	−1,925
16	956	655	45,871	+301
23	423	772	45,521	−349
Mar. 2	644	491	45,674	+153
9	2,027	200	47,501	+1,827
16	2,971	67	50,405	+2,904
23	3,722	201	53,926	+3,521
30	6,281	107	60,100	+6,174
Apr. 6	4,504	24	64,580	+4,480
13	3,128	149	67,559	+2,979
20	3,498	386	70,671	+3,112
27	2,497	156	73,012	+2,341
May 4	3,131	101	76,042	+3,030
11	2,620	70	78,592	+2,550
18	2,847	45	81,394	+2,802
25	2,804	154	84,044	+2,650
June				
July				
Aug.				
Sept.				
Oct.				
Nov.				
Dec.				
1986[2]				
Jan.				
Feb.				

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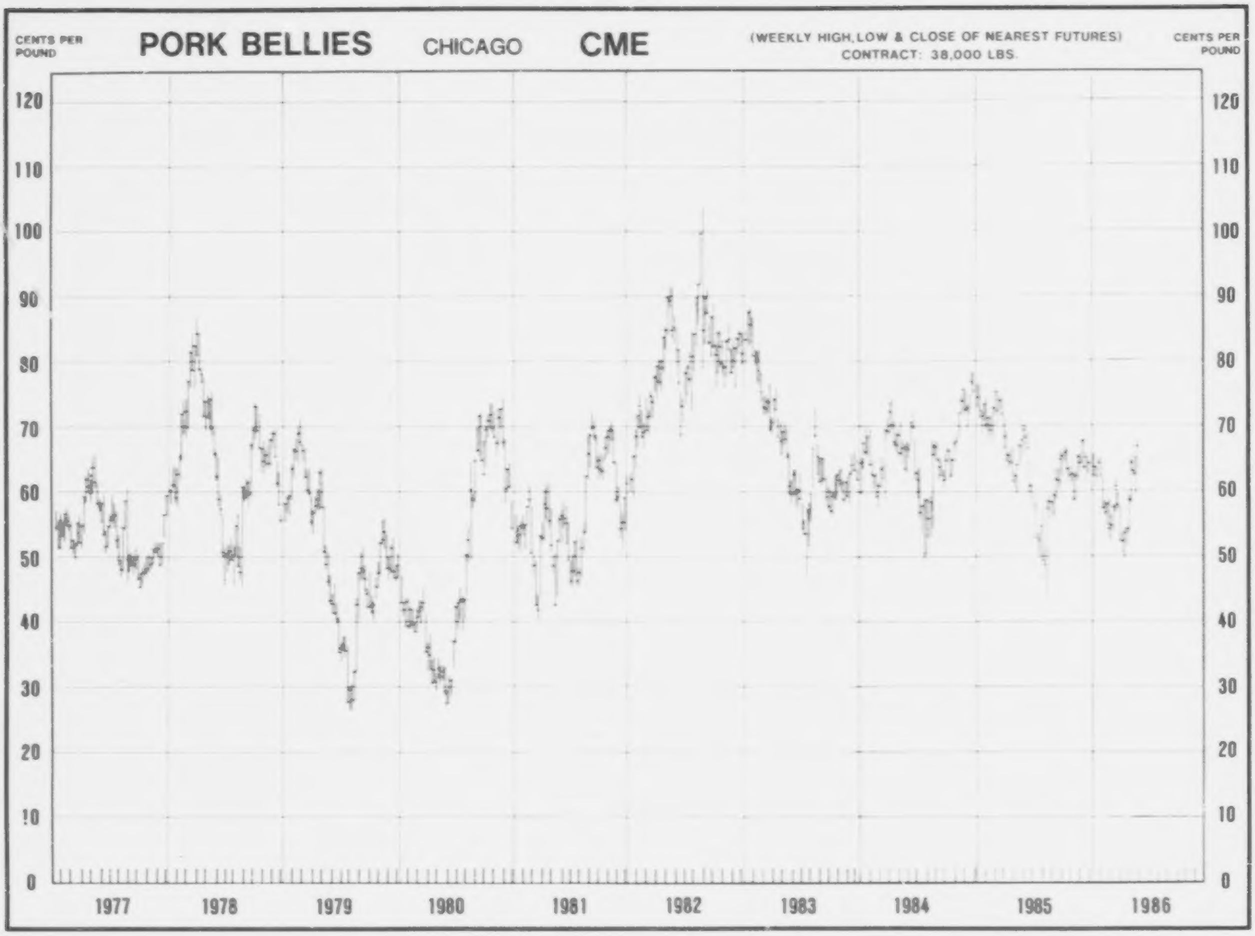
[1] Total approved Chi. Merc. Exch. warehouses. [2] Preliminary. *Sources: U.S. Department of Agriculture; Chicago Mercantile Exchange* T.518



Month End Open Interest of Pork Bellies Futures at Chicago In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.
1980	29,631	28,195	18,212	22,939	28,404	26,944	20,025	14,983	18,242	23,098	26,231	22,480
1981	15,687	12,471	12,821	16,714	15,825	18,911	11,550	10,058	10,424	14,088	16,425	13,643
1982	21,542	21,666	21,048	28,063	25,765	17,940	14,203	14,799	16,090	19,063	18,596	18,521
1983	19,654	16,510	17,563	16,850	16,870	17,242	12,162	12,268	16,042	16,976	20,242	20,247
1984	18,836	17,434	19,114	18,332	17,379	17,250	9,453	7,387	8,925	9,763	13,265	13,507
1985	14,452	14,784	12,561	12,580	11,355	10,731	8,452	6,590	6,914	7,904	9,134	8,103
1986	7,821	7,826										

Source: Chicago Mercantile Exchange

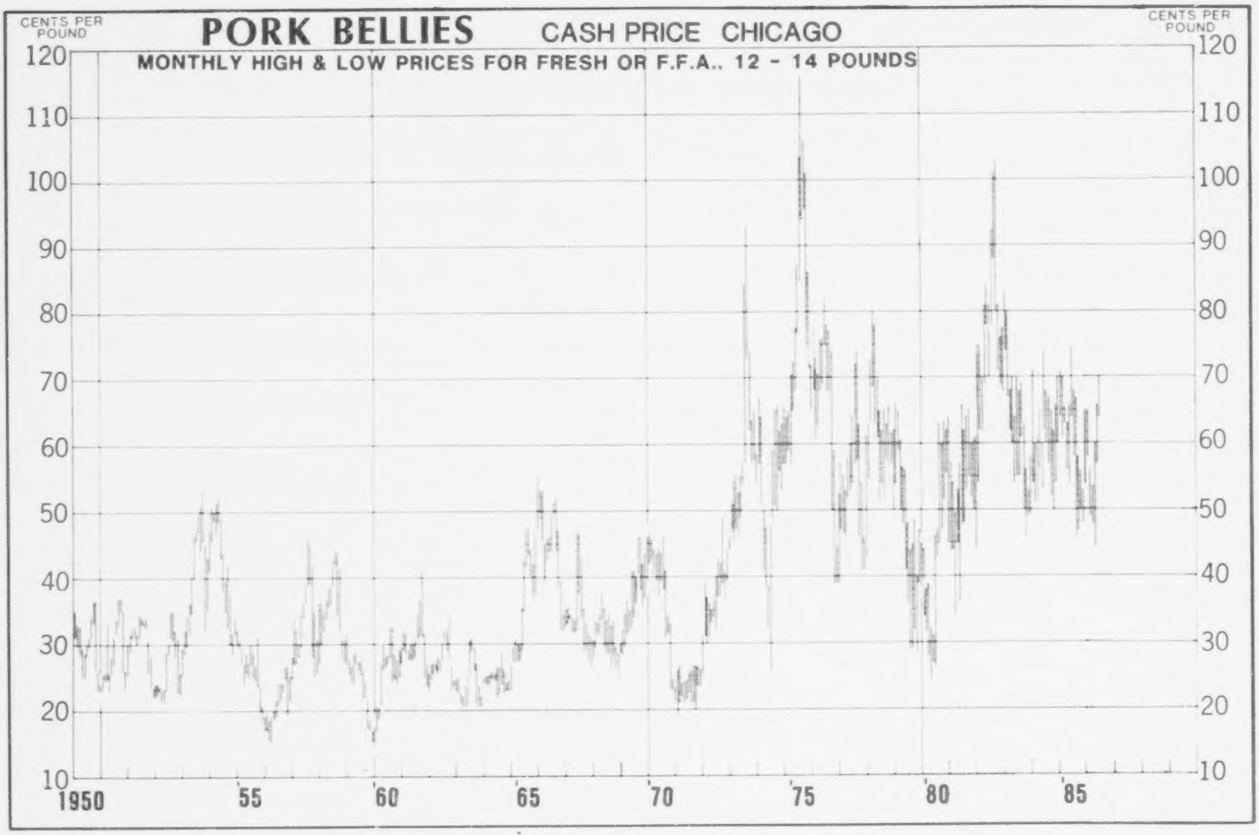
T.520

Volume of Trading of Pork Bellies Futures at Chicago In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Total
1980	191,920	206,539	189,881	183,876	165,844	206,669	198,256	169,404	167,355	220,435	178,821	176,622	2,250,945
1981	176,243	154,438	135,527	179,503	157,342	199,013	187,785	131,619	139,272	171,480	194,561	170,944	1,997,697
1982	196,040	216,333	263,431	265,863	301,763	248,825	217,434	229,207	188,129	224,449	227,482	232,688	2,811,674
1983	276,556	229,198	207,543	225,034	226,617	227,522	218,813	169,113	132,894	154,642	159,982	175,363	2,403,277
1984	221,795	182,080	186,817	159,774	207,820	173,066	187,619	119,469	77,028	121,926	148,940	121,711	1,908,045
1985	173,488	137,334	133,509	148,489	149,809	135,319	136,026	89,784	77,326	99,291	85,377	91,634	1,457,386
1986	92,033	81,768											

Source: Chicago Mercantile Exchange

T.521



High, Low & Closing Prices of May Pork Bellies Futures at Chicago In Cents per Pound

Year of Delivery		Year Prior to Delivery										Delivery Year					Life of Delivery Range
		Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	
1980	High	—	56.10	55.60	51.05	49.20	49.30	52.42	50.25	57.85	54.60	53.47	44.85	46.70	38.00	34.30	57.85
	Low	—	50.25	47.90	43.10	39.35	39.10	43.40	41.65	47.60	47.92	41.55	39.65	34.77	29.45	30.40	29.45
	Close	—	56.10	47.90	43.65	41.00	48.60	45.60	48.70	50.27	49.50	43.05	42.50	36.30	30.27	31.60	—
1981	High	58.50	52.60	49.75	54.50	61.60	66.25	73.30	75.15	75.15	77.05	59.60	63.00	55.30	61.35	52.65	77.05
	Low	49.75	46.15	43.35	41.32	53.50	57.40	59.25	63.47	67.70	58.05	53.65	52.55	41.90	52.15	42.45	41.32
	Close	51.10	48.40	43.45	53.90	59.30	59.50	68.47	71.20	75.15	58.05	57.70	52.55	55.05	52.15	48.77	—
1982	High	69.15	75.50	72.70	75.90	69.40	72.10	72.50	70.22	71.40	63.75	73.55	75.80	77.85	85.10	91.50	91.50
	Low	54.50	70.15	63.00	64.10	61.75	64.12	62.70	62.95	59.25	51.90	61.12	67.55	69.00	74.75	84.15	51.90
	Close	69.15	70.15	72.70	64.10	65.15	64.95	65.15	68.85	61.05	62.70	73.55	70.37	75.15	84.92	84.95	—
1983	High	73.85	77.95	79.20	77.00	75.00	82.90	85.45	82.05	83.10	83.30	86.30	81.55	76.40	75.90	70.90	86.30
	Low	70.20	71.65	74.00	65.25	67.25	69.02	75.37	75.80	74.25	74.35	78.15	74.25	68.50	65.60	64.45	64.45
	Close	72.60	77.55	79.00	72.72	74.35	82.10	82.40	77.80	80.75	79.70	79.70	74.25	70.60	67.80	65.05	—
1984	High	65.40	65.95	65.90	61.90	64.75	71.55	66.80	64.40	65.60	67.40	71.30	68.10	71.07	74.10	70.65	74.10
	Low	61.25	62.80	60.00	56.00	54.70	61.50	59.50	58.35	60.32	60.40	62.12	59.25	60.55	65.50	64.35	54.70
	Close	64.90	64.72	61.00	57.15	61.90	65.37	59.37	64.22	62.30	63.62	67.27	60.70	69.22	65.82	65.42	—
1985	High	79.95	80.50	79.00	82.47	77.70	69.50	67.70	68.52	76.50	79.00	79.15	74.90	75.40	71.52	66.30	82.47
	Low	67.00	74.95	73.80	75.40	63.70	63.15	61.05	62.50	67.90	70.75	70.75	67.47	70.20	63.10	59.80	59.80
	Close	78.50	75.30	74.65	77.75	64.75	66.80	62.62	68.15	76.40	78.52	72.75	70.72	71.82	65.65	65.65	—
1986	High	75.60	75.25	74.57	75.27	70.00	64.35	64.85	67.52	66.65	67.80	66.90	63.45				
	Low	69.00	70.55	69.80	69.70	59.50	57.05	57.25	62.35	60.00	63.00	62.35	54.40				
	Close	75.35	73.70	74.12	70.30	62.95	59.65	64.85	63.65	66.45	64.90	63.50	55.85				
1987	High																
	Low																
	Close																

Source: Chicago Mercantile Exchange

T.519

Potatoes

USDA estimated plantings to the 1985 U.S. fall potato crop (the most important seasonal production group) at 1.18 million acres, 5 percent larger than a year earlier. Harvested acreage was up 4.4 percent and yield per acre was a record-large 306 lbs. As a result, fall crop production reached a record-high 350.3 million cwt., up 11.8 percent from 1984 output.

The composition of production in 1985 differed from 1984, in that a substantial amount and percentage of potato acreage was shifted from round-white to russets. In Maine, for instance, the relative shift between 1984 and 1985 was some 15 percent, while in Minnesota and North Dakota the increase was 2 percentage points, that is, up to a total of 24 percent. Only in Wisconsin did russet's share decline, by 12 percent.

January 1, 1986 fall crop potato stocks in the 15 major producing states amounted in aggregate to 201 million cwt., an increase of some 15 percent over 1985 and 21 percent above January 1, 1984 stocks. Nearly 27 million cwt. were held in the three eastern states of Maine, New York and Pennsylvania; almost 46 million in the six central states (Michigan, Minnesota, Nebraska, North Dakota, Ohio, Wisconsin); and 129 million in the six western states (California, Colorado, Idaho, Montana, Oregon, Washington). Stocks for the 15 combined states represented just under 60 percent of the total output in 1985.

The record-large 1985 fall potato crop reflecting increased acreage and a high average yield, together with an expected decline in processors' demand for potatoes (due to a substantial gain in stocks of frozen potatoes at the end of 1985), favored low prices throughout the 1985/86 marketing season and a potential reduction in 1986 fall crop acreage.

World Production of Potatoes In Thousands of Metric Tons

Yr. of Harvest	Austria	Canada	Czechoslovakia	France	E. Germany	W. Germany	Italy	Japan	Netherlands	Poland	Spain	United Kingdom	USSR	United States	World Total
1979	1,494	2,760	3,725	5,900	12,243	8,716	2,957	3,381	5,937	49,600	5,400	6,485	90,956	15,536	255,134
1980	1,264	2,478	2,713	6,864	9,214	6,694	2,396	3,421	6,267	26,391	5,742	7,080	67,023	13,737	202,263
1981[1]	1,176	2,541	3,500	5,294	10,000	7,586	2,204	3,250	6,445	43,074	5,483	6,282	72,000	15,358	225,320
1982[2]		2,602						3,650		35,000			83,000	16,108	
1983[2]														15,146	
1984[2]														16,448	
1985[2]														18,331	

[1] Preliminary. [2] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T.523

Salient Statistics of Potatoes in the United States

Year	Acreage: Planted — 1,000 Acres —	Acreage: Harvested — 1,000 Acres —	Yield Per Harv. Acre Cwt.	Total Production Mil. Cwt.	Farm Disposition — Used Where Grown: Seed & Feed — Million Cwt.	Farm Disposition — Used Where Grown: Shrinkage & Loss — Million Cwt.	Farm Disposition: Sold[3] — Million Cwt.	Farm Price $ Cwt.	Value of Prod.[6] — Million $ —	Value of Sales — Million $ —	Stocks on Jan. 1[4] 1,000 Cwt.	Foreign Trade[5]: Dom. Exports — Ths. Cwt. —	Foreign Trade[5]: Imports — Ths. Cwt. —	Consumption[2] Per Capita —In Lbs.— Fresh	Consumption[2] Per Capita —In Lbs.— Processed
1980	1,182	1,148	265	303.9	6.4	23.4	273.1	6.55	1,979	1,788	176,020	2,459	2,412	56.3	61.5
1981	1,263	1,232	276	340.6	6.0	26.1	306.5	5.41	1,819	1,660	147,010	2,581	3,214	47.9	65.3
1982	1,303	1,267	280	355.1	7.3	31.0	316.8	4.45	1,563	1,411	164,380	1,932	1,144	50.0	65.3
1983	1,272	1,243	269	333.9	6.0	24.7	303.3	5.82	1,936	1,765	178,980	1,731	2,073	52.5	67.1
1984[1]	1,337	1,301	279	362.6	5.7	30.1	326.7	5.69	2,046	1,858	165,330			51.8	68.1
1985[1]	1,406	1,358	298	404.1				4.90			173,380				
1986[1]											201,300				

Note: 60 pounds equals one bushel. [1] Preliminary. [2] Fresh & processed. [3] For all purposes, including food, seed processing livestock feed. [4] Merchantable stocks held by growers & local dealers. [5] Year beginning July. [6] Farm weight basis. Excludes canned & frozen potatoes. *Source: National Agricultural Statistics Service, U.S.D.A.* T.522

Utilization of Potatoes in the United States In Millions of Cwt.

Crop Year	Sales: Table Stock	Sales — For Processing: Chips, Shoestrings	For Processing: For dehydration	For Processing: Frozen French Fries	For Processing: Other Frozen Pdt's	For Processing: Canned Potatoes	For Processing: Other Canned Pdt's[2]	For Processing: Starch & Flour	Other Sales: Livestock Feed	Other Sales: Seed	Other Sales: Total Sales	Used on Farms Where Grown	Total
1980	96.8	37.9	28.2	67.2	13.7	2.1	2.0	2.2	3.9	19.2	273.1	29.8	302.9
1981	112.0	39.3	29.9	79.8	16.8	2.5	1.7	2.3	3.6	20.4	308.3	32.3	340.6
1982–3	120.3	40.7	27.7	76.0	17.3	2.7	1.8	4.6	6.2	19.5	316.8	38.3	355.2
1983–4	107.3	43.3	26.8	74.4	19.7	2.1	2.0	3.0	3.8	20.9	303.3	30.6	333.9
1984–5[1]	113.7	42.6	27.8	86.0	21.5	2.3	2.1	3.4	4.7	22.7	326.7	35.9	362.6

[1] Preliminary. [2] Hash, stews, soups. [3] Includes 12.0 sold for livestock feed & starch under the U.S.D.A. diversion program. *Source: Crop Reporting Board, U.S.D.A.* T.531

Potato Crop Production Estimates, Stocks & Disappearance in the U.S. In Millions of Cwt.

	Crop Production Estimates						Total Storage Stocks[2]						Disappearance of Previous Fall Crop Until				
	Total Crop			Fall Crop				Following Year						Following Year			
Year	Oct. 1	Nov. 1	Dec.	Oct. 1	Nov. 1	Dec. 1	Dec. 1	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	Dec. 1	Jan. 1	Feb. 1	Mar. 1	Apr. 1
1980	296.9	296.9	301.0	260.7	260.7	264.6	172.0	147.0	122.1	97.7	72.7	44.5	84.1	110.0	135.0	160.0	186.0
1981	329.9	329.9	333.7	287.1	287.1	290.7	193.6	164.4	137.8	111.8	82.3	50.8	93.6	121.0	149.0	175.0	204.0
1982	350.0	350.0	349.3	306.9	308.9	305.0	206.5	179.0	150.2	122.5	90.1	57.3	92.3	121.0	149.0	178.0	209.0
1983	329.8	329.8	325.7	292.7	292.7	325.7	192.5	165.3	138.9	112.7	81.7	50.4	90.7	117.0	143.0	169.0	200.1
1984	358.8	358.8	361.6	310.0	310.0	312.2	201.4	173.4	144.8	118.4	86.4	52.5	130.0	159.0	187.0	217.0	251.0
1985[1]		400.4	404.1		346.1	340.8	233.8	201.3	169.8	137.4	102.6	63.4	139.0	171.0	203.0	238.0	277.0

[1] Preliminary. [2] Held by growers & local dealers in the fall producing areas. *Source: Crop Reporting Board, U.S.D.A.* T.525

United States Potato Production by Seasonal Groups In Millions of Hundredweight (CWT.)

		Spring			Summer		Fall								
Year	Winter	Florida	Calif.	Total Spring	Va.	Total	Maine	Wisc.	Minn.	Colo.	No Dak.	Wash.	Idaho	Oregon	Total Fall
1980	2.4	3.6	8.8	17.1	1.5	17.0	25.0	16.0	9.9	11.0	15.7	43.9	79.8	19.7	266.4
1981	2.2	5.3	10.3	20.8	2.3	20.0	26.5	18.2	13.3	11.6	20.1	52.9	84.5	21.7	295.6
1982	2.3	5.7	9.6	21.0	2.5	22.8	27.0	22.6	11.5	12.8	17.3	52.8	91.8	21.1	309.1
1983	2.2	5.1	8.3	18.3	1.0	18.7	22.6	18.9	10.3	14.0	20.5	54.1	86.0	20.7	294.7
1984	2.6	6.7	11.1	23.8	1.5	23.1	21.4	21.4	13.8	17.2	20.6	56.9	86.6	23.5	313.1
1985	2.7	6.6	10.6	23.0	3.3	28.2	27.2	24.1	14.1	17.9	23.6	62.4	102.5	26.7	350.3
1986[1]	2.8	6.3	7.8	19.6											

[1] Preliminary, December estimate. *Source: U.S.D.A.—Crop Reporting Board* T.524

United States Potatoes Processed[1], Eight States In Thousands of cwt.

States	Storage Season	to Dec. 1	to Jan. 1	to Feb. 1	to Mar. 1	to Apr. 1	to May 1	Entire Season
Idaho and Malheur Co., Oreg.	1983-4	15,755	20,445	24,785	29,540	35,155	40,640	53,810
	1984-5	19,000	24,310	29,200	34,010	39,510	44,650	57,410
	1985-6	17,830	22,980	26,600	32,170	37,910	43,240	
	1986-7							
Maine[2]	1983-4	1,160	1,745	2,260	2,780	3,370	3,970	5,125
	1984-5	1,820	2,410	3,015	3,520	4,330	5,185	6,550
	1985-6	2,215	2,920	3,805	4,545	5,540	6,280	
	1986-7							
Wash. and other areas, Oreg.	1983-4	16,245	19,920	23,690	28,250	33,280	37,455	45,800
	1984-5	20,745	24,690	29,345	33,560	38,815	43,380	51,670
	1985-6	21,590	25,665	29,450	34,450	39,990	45,110	
	1986-7							
Other States[3]	1983-4	4,305	6,005	7,755	9,600	11,615	13,400	16,320
	1984-5	5,695	7,510	9,210	10,930	12,745	14,715	21,005
	1985-6	6,470	7,990	9,900	12,020	13,860	16,095	
	1986-7							
Total	1983-4	37,465	48,115	58,490	70,170	83,420	95,465	121,055
	1984-5	47,260	58,920	70,770	82,020	95,400	107,930	136,635
	1985-6	48,105	59,555	69,815	83,185	97,300	110,725	

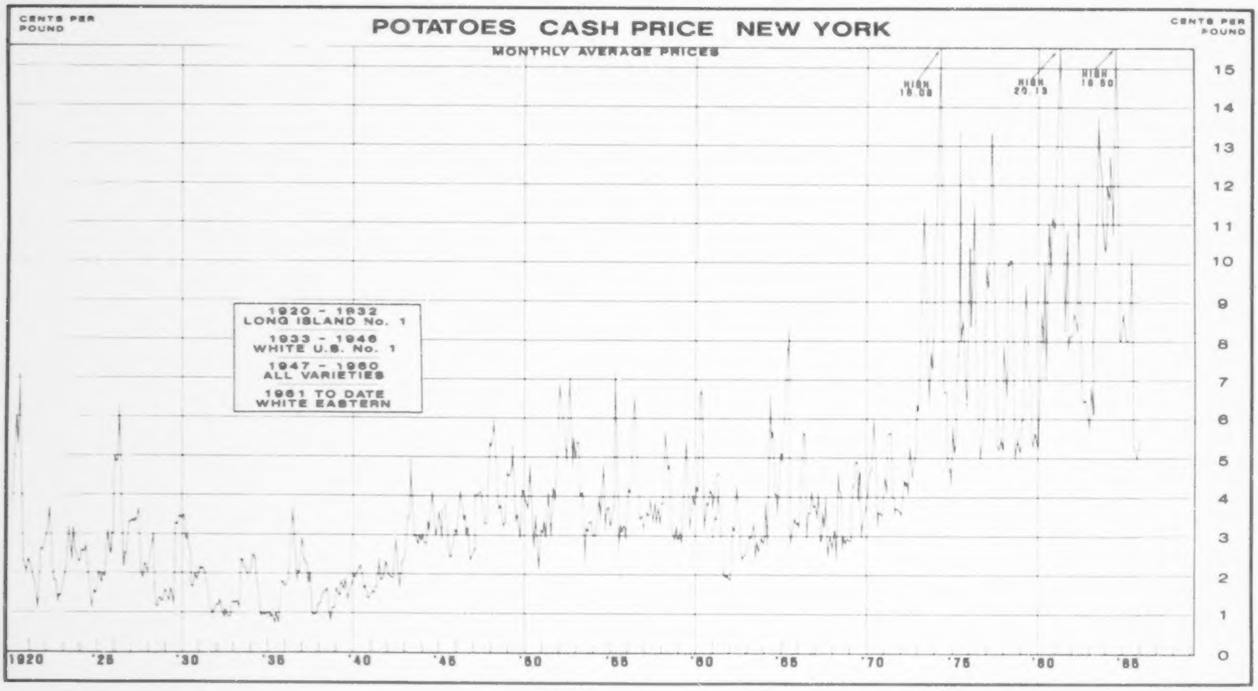
[1] Total quantity received and used for processing regardless of the state in which the potatoes were produced. Does not include quantities used for potato chips in Maine, Mich., Minn., N. Dak. or Wis. [2] Includes Maine grown potatoes only. [3] Mich., Minn., N. Dak. and Wis. *Source: Crop Reporting Board, U.S.D.A.* T.524a

U.S. Cold Storage Stocks of All Frozen Potatoes (First of Month) In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1980	812.2	835.1	868.2	906.6	908.2	958.7	964.0	814.3	598.5	626.5	754.3	813.2
1981	729.9	707.5	757.8	774.4	792.6	812.4	792.7	592.2	457.9	563.9	718.4	746.9
1982	688.7	703.5	783.4	846.0	—	—	939.3	—	—	626.8	—	—
1983[1]	767.3	800.1	879.9	899.8	958.0	986.6	1,015.3	823.2	603.8	637.2	775.2	817.4
1984[1]	773.0	754.8	783.9	827.6	808.2	843.3	840.4	626.8	516.5	635.3	821.3	884.2
1985[1]	892.3	900.0	943.4	1,003.3	1,023.6	1,081.6	1,058.4	828.2	735.4	861.4	1,014.2	1,020.2
1986[1]	1,012.3	907.0	950.4	1,016.7								

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.529

POTATOES



Wholesale Price of Potatoes (White Eastern)[2] at New York In Dollars Per Cwt.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1983	5.750	6.875	6.125	9.000	9.250	9.750	13.750	12.500	11.500	10.500	10.250	10.625	9.656
1984	12.000	11.625	12.750	11.500	10.750	13.750	18.500	13.500	9.500	8.000	8.000	8.750	11.552
1985	8.250	8.000	8.000	8.000	8.500	10.500	8.000	5.250	5.000	5.250	5.250	5.000	7.125

[1] All varieties and types of Irish old and new stock. U.S. No. 1A, (0113-0443). *Source: Bureau of Labor Statistics* T.527

Month End Open Interest of Potato Futures at New York In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1984	1,449	1,498	1,191	665	947	1,459	1,745	2,098	2,213	2,092	1,863	1,870
1985	2,010	2,280	1,684	907	407	635	1,164	1,566	1,611	1,678	1,585	1,720
1986	1,994	2,080	2,290	2,704								

Source: N.Y. Mercantile Exchange T.532

Volume of Trading in Maine Potato Futures, on N.Y. Mercantile Exchange In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1984	1,930	1,894	3,161	2,893	1,297	2,372	2,578	1,819	1,665	3,865	1,795	1,326	26,595
1985	1,311	1,777	2,505	2,155	1,550	743	1,464	1,215	1,143	1,639	848	553	16,903
1986	672	1,044	786	1,358									

Source: New York Mercantile Exch. T.526

U.S. Average Price Received by Farmers for Potatoes In Dollars Per Cwt.

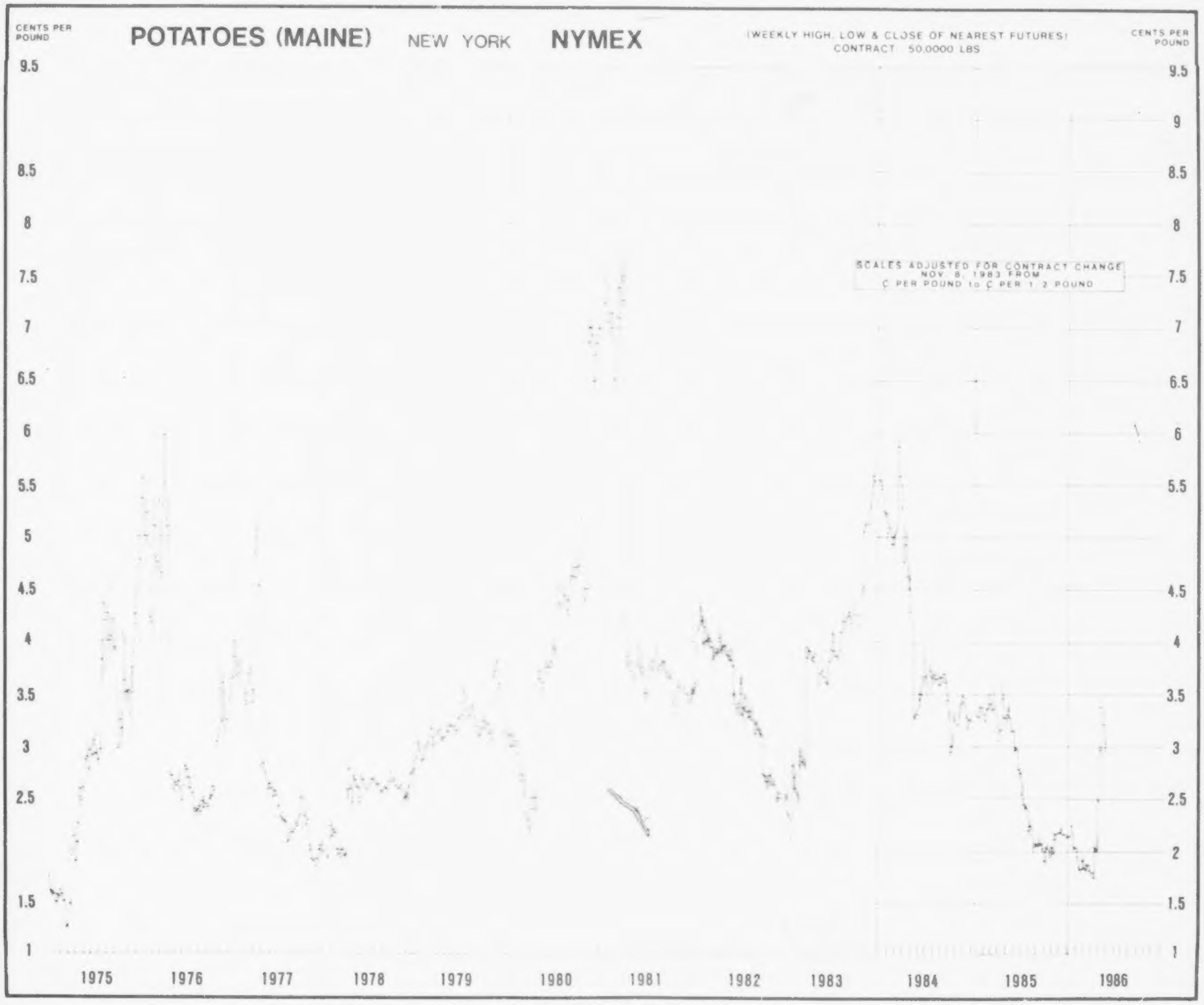
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Avg.[1]
1983	3.53	3.69	4.07	4.65	5.52	5.33	6.36	7.03	4.94	4.14	4.87	5.46	5.82
1984[2]	6.43	6.29	6.55	6.69	7.04	7.52	9.81	8.77	4.87	4.26	4.60	4.90	5.67
1985[2]	5.22	5.31	5.40	5.80	6.18	6.94	6.04	4.18	3.58	3.59	3.35	3.23	4.90
1986[2]	3.11	3.30	3.50	4.31									

[1] Annual weighted average by sales. [2] Preliminary. *Source: Statistical Reporting Service, U.S.D.A.* T.530

High, Low & Closing Prices of April Potato Futures at New York In Cents per Pound

Year of Delivery		Year Prior to Delivery Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Delivery Year Jan.	Feb.	Mar.	Apr.	Life of Delivery Range
1982	High	—	11.87	11.49	10.25	10.22	10.86	10.99	10.80	10.50	8.77	8.77	8.99	9.39	8.25	—	11.87
	Low	—	11.05	9.70	9.40	8.85	8.93	10.02	9.96	8.14	8.17	7.72	7.75	8.22	7.40	—	7.40
	Close	—	11.14	9.85	10.21	9.04	10.50	10.20	10.11	8.37	8.48	7.85	8.64	8.27	7.80	—	—
1983	High	—	—	10.74	10.65	10.20	9.75	9.13	8.72	8.49	6.90	6.83	7.41	6.69	6.23	—	10.74
	Low	—	—	9.71	9.85	8.52	8.44	8.49	8.20	6.20	6.10	6.28	6.37	5.82	5.46	—	5.46
	Close	—	—	10.50	10.01	8.74	8.73	8.70	8.25	6.25	6.56	6.57	6.50	5.82	5.87	—	—
1984	High	—	—	—	—	5.00	5.39	6.10	6.25	5.25	5.85	6.48	6.28	5.75	5.97	5.12	6.48
	Low	—	—	—	—	4.17	4.40	5.20	5.67	4.55	5.30	5.71	5.68	5.38	5.24	4.53	4.17
	Close	—	—	—	—	4.40	5.30	5.74	6.00	4.75	5.85	6.38	5.62	5.75	5.29	4.53	—
1985	High	—	—	—	4.18	4.75	4.50	4.18	4.15	3.90	3.57	3.60	3.54	3.83	3.67	3.20	4.75
	Low	—	—	—	3.82	3.90	4.00	3.97	3.84	3.21	3.39	3.26	3.31	3.40	3.19	3.05	3.05
	Close	—	—	—	3.96	4.35	4.13	3.98	3.84	3.52	3.55	3.37	3.47	3.63	3.20	3.16	—
1986	High	—	—	—	—	—	2.85	2.82	2.47	2.36	2.25	2.22	2.25	2.03	1.99	1.81	2.85
	Low	—	—	—	—	—	2.70	2.40	2.33	2.11	2.12	2.15	2.03	1.82	1.77	1.75	1.75
	Close	—	—	—	—	—	2.70	2.40	2.33	2.22	2.20	2.16	2.03	1.95	1.77	1.75	—

Source: N.Y. Mercantile Exch. T.528



Rapeseed

The Foreign Agricultural Service of the USDA in March 1986 estimated 1985/86 world production of rapeseed at a record-large 18.83 million metric tons (tonnes), about 11 percent above the previous record of 16.90 million tonnes produced in the previous season. The greatest increase took place in China, the world's largest producer and consumer of rapeseed.

The world rapeseed crush in the 1985/86 season was forecast by the USDA at 16.52 million tonnes, 6 percent above estimated 1984/85 crushings. World exports of rapeseed were expected to increase slightly in 1985/86, to about 3.06 million tonnes from 3.04 million in the 1984/85 season. Canada remains, by far, the world's largest exporter of rapeseed, but its exports in 1985/86 were expected to be lower than in the previous season, partly because of concern by Japanese buyers (Canada's largest customer) over Canadian seed quality this season. World stocks of rapeseed at the end of the 1985/86 season were projected by the USDA at 1.57 million tonnes, about 68 percent larger than at the end of the 1984/85 season; most were expected to be held by Canada.

Forecast 1985/86 world production of rapeseed oil, at 6.00 million tonnes, was about 5 percent above 1984/85 output. China and India are the world's largest producers of rapeseed oil. However, China is not a significant factor in the export of rapeseed oil. India is usually the world's largest importer of rapeseed oil, followed by Algeria. World consumption in the 1985/86 season was forecast at 5.89 million tonnes, slightly above the 5.55 million estimated for 1984/85. China and India are the top consumers of rapeseed oil, followed by the European Community. The United Kingdom and West Germany are the largest users in the EC. The Community also is the world's largest exporter of rapeseed oil. World 1985/86 season ending stocks were projected at 200 thousand tonnes, about the same as a year earlier.

Global rapeseed meal production in the 1985/86 season was forecast at 10.07 million tonnes versus a preliminary estimate of 9.51 million tonnes in the 1984/85 season. China is the world's largest consumer of rapeseed meal and its use was expected to increase in 1985/86. The European Community is also a major consumer, and its consumption was also expected to rise. In the EC, rapeseed meal is mostly limited to dairy rations. According to the USDA, it can comprise as much as 20 percent of cattle feed, but its use in pig and poultry feeds is limited to about 4 percent. World consumption in 1985/86 was forecast at 10.10 million tonnes versus 9.33 million in 1984/85.

World trade in rapeseed meal is not large and is dominated by the European Community which is both the largest importer and exporter, although on balance a net importer. China and India are exporters of meal, as is Canada. World exports of rapeseed meal in the 1985/86 season were forecast at 1.25 million tonnes compared with 1.48 million in 1984/85. Ending stocks, typically very small, were expected to be reduced even further in 1985/86.

Rapeseed contains roughly 41 percent oil and 58 percent meal compared with about 18 percent oil and 79 percent meal for soybeans. Sunflowerseeds contain slightly more oil and less meal than rapeseed. Rapeseed oil high in erucic acid is used primarily for industrial lubricants, mainly in Europe. Low-erucic acid rapeseed (known as canola) is produced in Canada, the U.S., and increasingly in the EC for human consumption.

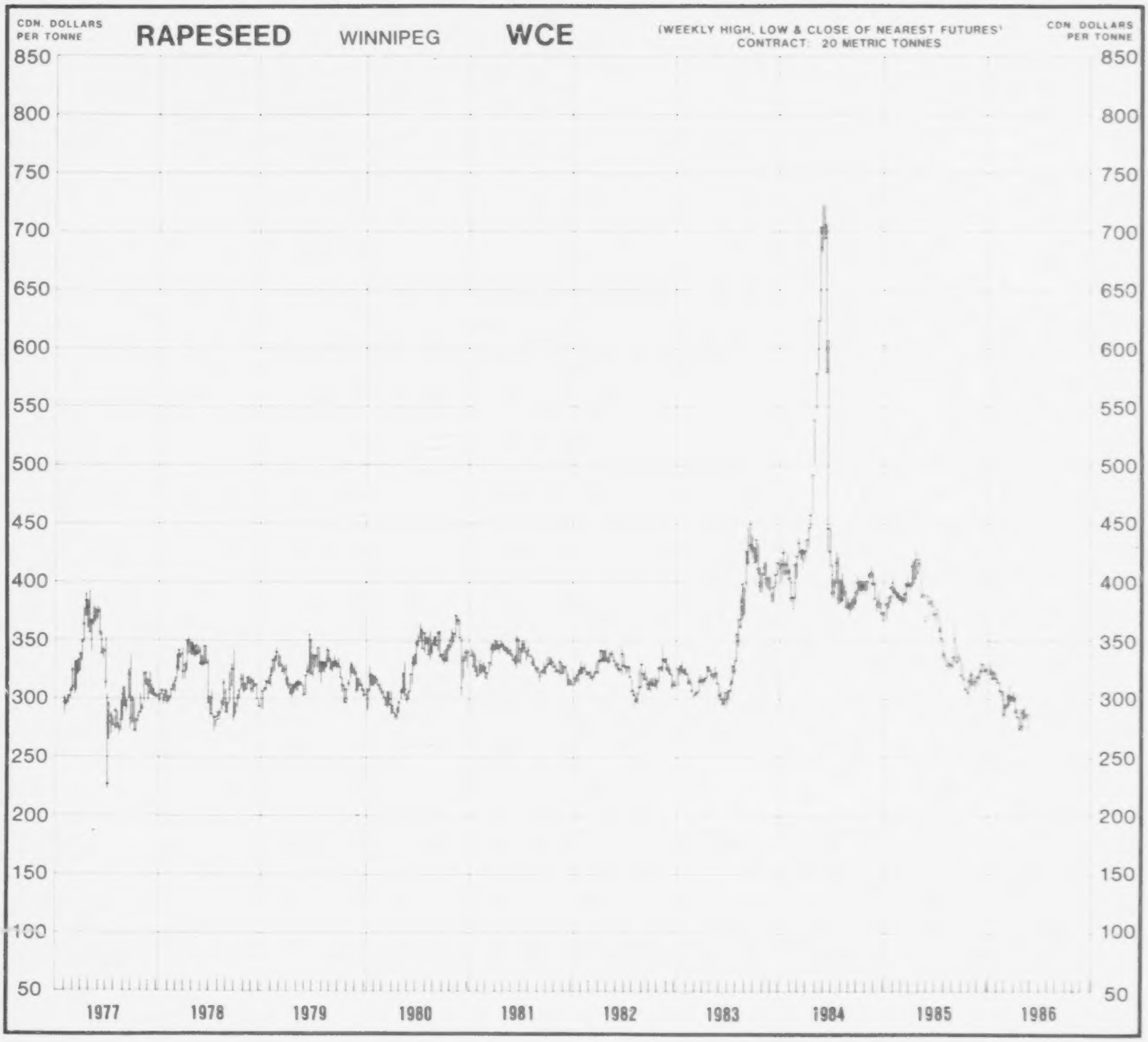
Futures Market

Rapeseed futures are traded on the Winnipeg Commodity Exchange.

World Production of Rapeseed (In Thousands of Metric Tons)

Year[2]	Canada	China	Czechoslovakia	Denmark	France	E. Germany	W. Germany	India	United Kingdom	Bangladesh	Pakistan	Poland	Sweden	Yugoslavia	World Total
1972	2,155	1,000	107.0	51	722.0	234.0	248.7	1,433		106.0	301.0	430.0	327.0		6,624
1973	1,300	1,050	117.0	92	661.0	246.0	242	1,808		98	287.0	512.0	339		7,001
1974	1,207	1,075	85	112	690	200	301	1,692		107	293	523	351		7,022
1975	1,163	1,090	115	115	532	250	194	2,300		110	305	726	327		7,989
1976	1,749			90	561							980	279		
1977	1,973	1,180	162	77	388	308	282	1,650	142	134	236	708	236	40	7,890
1978	3,497	1,868	166	91	568	318	331	1,860	155	137	248	691	289	73	10,721
1979	3,411	2,402	80	150	510	201	321	1,428	198	118	247	233	264	93	10,080
1980	2,484	2,384	214	225	1,103	277	377	2,002	300	122	252	572	285	68	11,104
1981	1,849	4,065	200	290	990	307	363	2,382	325	123	238	496	282	65	12,368
1982	2,225	5,656	178	335	1,147	280	535	2,207	580	120	246	433	320	79	14,773
1983[1]	2,632	4,287	314	309	906	261	599	2,566	580	131	217	555	318	103	14,258
1984[2]	3,380	4,200	300	517	1,302	280	662	3,030	930	140	210	955	328	123	16,840
1985[3]	3,400	5,500	265	370	1,337	251	710	3,000	950	140	230	1,081	332	120	18,710

[1] Preliminary. [2] Harvest generally occurs in the first half of the calendar year given in all major producing countries except Canada. [3] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T.533



World Supply & Distribution of Rapeseed & Products In Thousands of Metric Tons

	Rapeseed					Rapeseed Meal					Rapeseed Oil				
Crop Year	Production	Exports	Imports	Crush	Ending Stocks	Production	Exports	Imports	Consumption	Ending Stocks	Production	Exports	Imports	Consumption	Ending Stocks
1979-80	10,081	2,102	2,403	8,714	1,708	5,206	520	640	5,316	149	3,365	643	571	3,295	159
1980-81	11,107	2,305	2,366	10,478	1,489	6,254	805	636	6,035	199	4,051	824	741	3,580	147
1981-82	12,372	2,142	2,216	11,980	909	7,350	840	683	7,200	186	4,390	822	770	4,400	150
1982-83	14,783	2,390	2,540	13,819	790	8,450	770	871	8,491	224	4,990	837	780	4,910	153
1983-84	14,267	2,580	2,680	13,300	660	8,120	1,190	1,270	8,160	280	4,850	960	940	4,780	200
1984-85[1]	16,900	3,040	3,290	15,570	930	9,510	1,480	1,230	9,330	210	5,690	1,270	1,130	5,550	200
1985-86[1]	18,830	3,060	2,910	16,520	1,570	10,070	1,250	1,270	10,100	200	6,000	1,200	1,120	5,890	200

[1] Preliminary. *Source: Foreign Agricultural Service, U.S.D.A.*

T.534a

RAPESEED

High, Low & Closing Prices of June Rapeseed Futures in Winnipeg   In Dollars per Tonne

Year of Delivery		Year Prior to Delivery									Delivery Year						Life of Delivery Range
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
1979	High	—	286.0	284.0	268.0	284.0	288.0	312.8	304.0	307.5	315.5	340.2	337.7	318.4	316.5	354.5	354.5
	Low	—	278.5	263.7	255.8	258.0	269.0	282.1	289.5	296.0	294.0	314.4	314.0	301.8	306.0	302.5	255.8
	Close	—	286.0	265.2	263.0	270.1	280.0	302.3	300.0	297.0	314.5	336.0	316.3	307.3	307.5	329.5	—
1980	High	301.0	315.9	354.5	351.0	340.0	339.0	340.5	339.0	331.8	342.0	330.5	319.9	295.1	331.2	326.2	354.5
	Low	295.0	299.0	315.9	319.0	321.0	326.7	314.1	320.0	318.5	301.0	318.5	291.0	282.0	287.6	299.5	282.0
	Close	299.0	315.8	329.5	325.5	337.0	335.6	324.0	330.5	319.5	324.5	319.4	291.0	289.5	299.9	317.0	—
1981	High	—	—	—	370.0	383.5	389.0	382.5	375.5	387.5	375.9	351.8	350.6	350.5	348.3	338.3	389.0
	Low	—	—	—	367.5	360.0	365.0	359.1	391.0	325.5	334.0	337.9	334.5	340.0	337.4	326.0	325.5
	Close	—	—	—	367.5	372.5	368.5	376.0	387.0	368.0	337.0	345.8	350.0	347.5	339.1	327.2	—
1982	High	—	—	—	396.0	391.0	378.3	371.8	366.5	353.0	344.0	340.8	333.5	342.8	340.8	331.7	396.0
	Low	—	—	—	384.0	375.5	355.0	358.8	341.6	334.6	331.0	328.0	319.8	327.3	329.7	321.0	319.8
	Close	—	—	—	391.0	375.5	360.3	365.4	344.8	335.1	334.5	332.7	327.0	334.1	332.7	330.0	—
1983	High	—	—	—	—	361.0	366.3	345.5	349.1	340.0	335.9	329.0	321.0	329.3	328.1	308.5	366.3
	Low	—	—	—	—	346.0	332.0	332.6	339.6	322.3	323.1	311.5	311.8	311.0	309.5	292.8	292.8
	Close	—	—	—	—	354.2	337.0	342.5	340.3	325.6	329.1	311.7	316.0	324.7	309.9	297.2	—
1984	High	—	—	—	359.5	434.0	467.4	452.5	435.2	424.5	431.4	412.0	426.5	502.2	724.0	724.0	724.0
	Low	—	—	—	330.0	364.5	415.5	409.0	406.1	397.3	406.5	382.9	403.0	426.0	507.5	577.0	330.0
	Close	—	—	—	350.5	423.6	447.5	409.7	407.8	421.5	410.2	403.5	426.5	502.2	704.0	577.0	—
1985	High	—	—	—	443.9	434.5	417.5	424.1	427.9	417.5	408.8	404.5	402.5	429.2	422.0	389.7	443.9
	Low	—	—	—	409.5	413.5	406.5	414.9	415.3	389.8	388.0	395.5	391.4	393.2	361.5	379.0	361.5
	Close	—	—	—	413.0	413.7	416.5	417.7	416.8	390.5	397.4	397.4	397.5	408.6	367.0	381.9	—
1986	High	422.5	424.0	409.5	400.4	370.0	357.0	351.5	315.5	347.3	346.7	329.8	316.7				
	Low	421.5	402.5	388.0	364.5	348.0	342.5	328.4	325.5	330.7	328.6	296.1	298.8				
	Close	421.5	403.2	388.0	368.5	352.8	342.5	328.4	333.6	342.2	329.5	300.6	305.7				

Source: Winnipeg Commodity Exchange

T.536

Wholesale Price of Rapeseed Oil, Refined (Denatured), in Tanks at N.Y.   In Cents Per Pound

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
1974	17.5	18.4	21.0	21.0	30.6	45.0	45.0	45.0	46.2	47.5	45.8	59.0	36.8
1975	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	51.2	46.0	46.0	56.2
1976	46.0	46.0	46.0	46.0	46.0	46.0	46.0	44.2	39.0	39.0	39.0	39.0	43.5
1977	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
1978	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
1979	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
1980	47.0	47.0	47.0	47.0	47.0	47.0	47.0	46.0	46.0	46.0	46.0	46.0	46.6
1981	56.4	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	58.8
1982	57.0	55.0	56.8	57.5	56.0	56.0	56.0	56.0	55.7	55.3	55.3	55.3	50.0
1983	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3
1984	55.3	55.3	55.3	55.3	55.5	55.5	55.2	55.2	55.2	55.2	55.2	55.2	55.3
1985	55.2	55.2	55.2	N.A.	N.A.	68.3	67.9	64.0	62.5	62.5	62.5	60.5	61.4
1986													

Source: Economic Research Service, U.S.D.A.

T.534

Month-End Open Interest of Rapeseed Futures in Winnipeg   In 20 Tonne Units

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.	Oct	Nov.	Dec
1978	9,288	11,435	11,869	11,908	14,442	14,300	17,778	20,456	17,960	18,672	16,707	15,299
1979	15,288	15,164	16,338	15,593	12,993	14,209	12,950	13,596	15,001	21,300	21,827	21,966
1980	15,718	17,516	13,392	14,285	17,722	17,254	17,126	17,108	18,827	22,036	21,911	20,504
1981	15,376	15,326	18,028	18,764	18,000	15,332	14,948	15,316	15,755	16,064	16,260	12,911
1982	13,532	14,970	9,952	12,230	15,997	11,554	12,623	16,948	13,904	15,503	17,992	20,555
1983	16,288	17,964	18,266	16,681	15,327	13,834	18,249	22,681	20,481	18,778	18,302	17,554
1984	14,170	16,807	13,980	13,743	15,220	14,025	14,348	15,822	17,967	15,893	18,046	19,361
1985	20,883	22,483	22,144	19,666	19,617	16,639	18,019	18,962	13,924	15,894	15,213	18,832
1986	15,083	21,017	19,412									

Source: Winnipeg Commodity Exchange

T.535

Rayon and Other Synthetic Fibers

World Production of Rayon &/or Acetate Filament Yarn & Monofilaments In Thousands of Metric Tons

Year	United States	Bel./Neth-erlands	Brazil	Canada	France	W. Ger-many	E. Ger-many	Un. Kingdom	Italy	Japan	India	Poland	Spain	China	USSR	World Total
1977	160.0	36.2	28.8	11.0	20.8	63.7	36.0	62.6	44.4	107.4	58.9	28.6	15.0	61.0	295.0	1,172
1978	164.6	36.0	24.1	12.3	19.3	59.7	34.0	59.7	39.3	109.8	62.4	28.0	13.8	65.0	300.0	1,167
1979	169.4	36.1	24.4	14.1	18.5	58.1	35.0	59.2	38.4	114.3	60.7	27.2	12.6	68.0	298.0	1,176
1980	161.3	37.4	26.0	14.0	16.4	65.2	36.5	36.7	36.6	119.3	57.7	25.4	12.8	75.0	305.0	1,161
1981	138.6	38.3	21.0	13.5	11.0	65.0	37.0	27.0	35.1	118.7	55.9	19.5	12.6	80.0	300.0	1,104
1982	103.6	38.1	20.8	9.5	8.6	61.0	34.0	24.0	31.6	120.5	48.6	19.3	11.3	80.0	294.4	1,025
1983	119.7	41.1	18.4	10.0	8.4	59.0	35.0	25.0	29.3	116.8	46.2	18.2	10.5	85.0	300.0	1,043
1984[1]	108.4	41.1	17.7	10.0	7.5	66.0	35.2	21.0	30.6	110.8	44.2	19.5	7.2	87.0	307.0	1,038
1985[2]	92.8															

[1] Preliminary [2] Estimate *Source: Textile Organon*

T 537

World Production of Rayon &/or Acetate Staple & Tow In Thousands of Metric Tons

Year	United States	Austria	China	Czecho-slovakia	France	W. Ger-many	E. Ger-many	Un. King-dom	Italy	Japan	Po-land	Spain	Swe-den	India	USSR	World Total
1977	242.7	90.2	77.0	50.6	60.7	46.0	131.0	113.6	62.3	272.7	67.1	43.1	33.1	87.1	334.0	2,109
1978	245.7	96.0	80.0	49.5	55.2	49.0	129.2	124.4	46.9	279.4	65.4	46.6	36.9	92.0	335.0	2,148
1979	252.4	98.8	85.0	36.0	58.9	50.0	130.0	139.2	39.0	290.4	56.6	45.3	36.9	92.2	337.0	2,195
1980	204.3	100.6	95.0	34.9	49.6	46.0	132.0	109.3	27.5	278.0	61.0	40.1	34.9	74.7	345.0	2,081
1981	210.7	107.9	105.0	36.0	42.9	50.0	132.0	102.4	24.4	273.5	44.4	37.8	34.7	94.5	345.5	2,100
1982	161.5	100.8	105.0	35.5	36.9	50.0	127.8	89.2	14.2	258.8	45.1	31.8	38.0	52.8	340.5	1,917
1983	170.6	109.7	112.0	37.9	29.5	55.0	130.1	115.2	0	271.0	51.2	21.5	39.3	69.9	345.0	1,979
1984[1]	176.7	114.0	115.0	38.6	19.0	55.0	135.0	106.2	0	266.6	56.0	26.1	40.1	94.0	345.0	2,040
1985[2]	160.2															

[1] Preliminary [2] Estimate *Source: Textile Organon*

T 538

World[5] Production of Non-Cellulosic Man-Made Fibers (Except Olefin) In Thousands of Metric Tons

Year	United States: Text. Glass Fiber[1]	United States: Non-Cellulose Fiber[2]: Yarn[3]	United States: Non-Cellulose Fiber[2]: Staple[4]	United States: Non-Cellulose Fiber[2]: Total	United States: Total[5]	Can-ada	China	France	W. Ger-many	Italy/Malta	Tai-wan	Japan	Korea	Bene-lux	USSR	United King-dom	World Total
1977	357	1,415	1,622	3,037	3,394	112.8		243.9	690.2	330.1	364.4	1,280	349.9	139.3	456.0	358.8	9,149
1978	419	1,467	1,751	3,218	3,637	123.1	136.6	246.4	729.4	354.4	464.2	1,376	432.5	142.7	475.0	406.4	10,034
1979	460	1,595	1,889	3,484	3,944	121.6	164.0	224.0	759.5	360.2	521.3	1,363	477.3	135.6	476.0	381.1	10,601
1980	393	1,412	1,831	3,243	3,635	122.0	248.0	192.0	720.1	354.8	557.8	1,357	536.4	194.3	550.0	287.6	10,476
1981	472	1,439	1,837	3,276	3,748	105.9	347.0	201.2	752.2	435.3	587.0	1,329	610.4	105.7	572.8	249.3	10,827
1982	408	1,121	1,482	2,603	3,011	97.0	369.0	190.1	701.9	428.7	630.9	1,304	612.4	89.8	593.8	204.3	10,140
1983	530	1,294	1,715	3,009	3,539	112.3	400.0	198.3	757.6	455.1	737.4	1,318	663.9	83.2	622.0	227.7	11,074
1984[6]	632	1,260	1,677	2,937	3,569	121.3	701.0	193.8	771.0	518.9	865.9	1,369	746.2	85.5	644.0	235.5	11,893
1985[7]		1,400	1,600	3,000													

[1] Textile glass fiber of all types, including some staple [2] Acrylic fiber, nylon, polyester, saran, etc. [3] Includes monofilaments as well as some saran staple [4] Includes tow, but does not include some saran staple [5] The textile glass fiber data are included in the U.S. total & excluded from the rest of the world data [6] Preliminary [7] Estimate *Source: Textile Organon*

T 539

Man-Made Fiber Production in the United States In Millions of Pounds

Year	Rayon & Acetate: Rayon Yarn: Indust.	Rayon & Acetate: Rayon Yarn: Textile	Rayon & Acetate: Acet Yarn	Rayon & Acetate: Total Yarn	Rayon & Acetate: Staple & Tow: Rayon	Rayon & Acetate: Staple & Tow: Ace-tate	Rayon & Acetate: Staple & Tow: Total	Rayon & Acetate: Total	Non-Cellulosic Fiber: Yarn	Non-Cellulosic Fiber: Staple	Non-Cellulosic Fiber: Total	Total Ray. & Acet. & Non-Cel	Textile Glass Fiber	Total Man-made Fiber	Producers' Waste Shipments: Rayon	Producers' Waste Shipments: Non-Cell
1978	47.0	15.0	300.9	362.9	534.6	7.0	541.6	904.5	3,830.3	3,952.7	7,783.0	8,687.5	923.3	9,610.8	15.7	263.9
1979	41.7	15.1	316.6	373.4	549.4	7.0	556.4	929.8	4,154.3	4,282.3	8,436.6	9,336.4	1,014.4	10,380.8	17.2	238.6
1980	32.2	15.0	308.5	355.7	443.3	7.0	450.3	806.0	3,744.3	4,148.2	7,892.5	8,698.5	867.3	9,565.8	13.5	170.2
1981	33.4	15.1	257.0	305.5	460.6	4.0	464.6	770.1	3,814.8	4,191.1	8,005.9	8,776.0	1,041.1	9,817.1	15.3	174.2
1982	20.8	12.4	195.2	228.4	355.0	1.0	356.0	584.4	3,057.4	3,402.5	6,459.9	7,044.3	899.2	7,943.5	10.7	173.2
1983	25.0	11.2	227.6	263.8	374.8	1.4	376.2	640.0	3,567.8	3,970.6	7,538.4	8,178.4	1,167.2	9,335.9	9.4	214.1
1984	28.8	12.1	198.2	239.1	389.2	.4	389.6	628.7	3,524	3,947	7,472	8,100	1,394.0	9,494	11.4	216.9
1985[1]				204.6	352.7	.5	353.2	557.8	3,790	3,773	7,564	8,121	N.A.	N.A.	8.8	235.8

[1] Preliminary *Source: Textile Organon*

T 543

RAYON AND OTHER SYNTHETIC FIBERS

U.S. Rayon and Acetate Distribution In Millions of Pounds

	Yarn & Monofilaments								Staple & Tow & Fiber Fill						
	Producers' Shipments							Domestic	Producers' Shipments						Domestic
	To Domestic Consumers								Domestic Consumers						
Year	Industrial	Textile	Acetate	Total	Export	Total	Import	Consump	Rayon	Acetate	Total	Export	Total	Import	Consump
1979	55.0		288.4	343.4	31.8	375.2	13.3	356.7	442.4	7.0	449.4	100.1	549.5	16.5	465.9
1980	47.5		269.2	316.7	32.7	349.4	8.3	325.0	390.7	7.0	397.7	61.0	458.7	10.3	408.0
1981	46.6		226.3	272.9	34.8	307.7	10.7	283.6	396.9	4.0	400.9	59.8	460.7	16.8	417.7
1982	30.1		169.0	199.1	29.8	228.9	7.0	206.1	293.7	1.0	294.7	66.5	361.2	13.4	308.1
1983	35.5		197.6	233.1	28.2	261.3	8.7	241.8	333.5	1.4	334.9	43.9	378.8	13.6	348.5
1984	38.2		180.1	218.3	18.2	236.5	10.0	228.3	331.9	.4	332.3	52.1	384.4	17.0	349.3
1985[1]				187.1	23 0	210.1	13.9	201.0	323.7	.5	324.2	35.0	359.2	12.3	336.5

[1] Preliminary *Source: Textile Organon* T 540

U.S. Domestic Shipments of Synthetic Fibers In Millions of Pounds

	Yarn & Monofilaments								Staple & Tow						
	Cellulosic				Non-Cellulosic				Non-Cellulosic						
	Rayon														
Year	Industrial	Textile	Acetate	Total	Nylon	Olefin[2]	Polyester & Other	Total[3]	Rayon	Nylon	Acrylic & Mod-Acrylic	Olefin & Vinyon	Polyester	Total	Textile Glass Fiber
1979	55.0		288.4	343.4	1,631	624.2	1,525	3,798	442.4	913.2	546.6	119.3	2,134	3,714	922.6
1980	47.5		269.2	316.7	1,539	611.7	1,363	3,532	390.7	711.2	585.3	115.0	2,071	3,483	874.4
1981	46.6		226.3	272.9	1,404	628.3	1,430	3,483	396.9	696.4	494.1	132.0	2,005	3,328	982.0
1982	30.1		169.0	199.1	1,166	577.0	1,135	2,894	293.7	673.3	457.9	138.9	1,768	3,038	875.6
1983	35.5		197.6	233.1	1,392	698.6	1,294	3,385	333.5	897.1	492.2	183.4	2,099	3,672	1,166.1
1984	38.2		180.1	218.3	1,438	725.6	1,145	3,309	331.9	814.4	446.7	240.9	1,992	3,494	1,273.8
1985[1]				187.1	1,417	937.6	1,204	3,559	323.7	830.3	458.7	279.7	1,873	3,441	N.A.

[1] Preliminary [2] Includes film fiber [3] Includes Saran & Spandex *Source: Textile Organon* T 541

U.S. Mill Consumption of Fiber & Products & Per Capita Consumption

	Mill Consumption (Million Pounds)											Per Capita Domestic[4] Consumption (Pounds)				
Year	Yarn & Monofilaments	Staple & Tow	Total R. & A.[2]	Noncellulosic Fiber	Textile Glass Fiber	Waste	Total Man-made[3]	Cotton	Wool	Silk	Grand Total	Non-cell Man-made Fibers	Rayon & Acetate	Cotton	Wool	Total
1979	356.7	465.9	822.6	7,692	922.6	130.4	8,697	3,066	134.4	1.5	11,899	38.0	3.7	14.9	1.0	57.4
1980	325.0	408.0	733 0	7,145	874.4	83.0	8,064	3,064	137.8	1.5	11,266	34.3	3.2	14.6	.9	53.0
1981	283.6	417.7	701.3	7,007	982.0	129.8	7,862	2,731	152.7	2.0	10,748	34.8	3.1	14.4	1.0	53.4
1982	206.1	308.1	514.2	6,131	875.6	132.8	6,775	2,479	129.5	2.0	9,386	31.2	2.3	13.5	.9	48.0
1983	241.8	348.5	590.3	7,396	1,166.1	197.2	8,164	2,796	162.5	2.0	11,124	38.3	2.6	15.8	1.2	57.9
1984	228.3	349.3	577.6	7,202	1,273.8	188.0	7,946	2 668	163.2	3.0	10,781					
1985[1]	201.0	336.5	537.5	7,466	N.A.	209.0	8,011	2,793	134.7	3.0	10,942					

[1] Preliminary [2] Rayon and acetate [3] Man-made fiber data include only glass fiber for textile end uses [4] Mill consumption adjusted for Raw Fiber Equivalent of Net U.S. Trade in Textile Mfg. *Source: Textile Economics Bureau* T 542

United States Imports of Man Made Fiber Manufactures In Millions of Pounds

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1980	36.39	39.90	39.62	37.37	46.72	55.92	57.69	50.18	52.11	49.18	40.10	35.46	540.64
1981	46.72	38.55	43.81	45.53	57.83	58.01	66.66	69.32	56.77	67.24	49.12	39.51	639.08
1982	53.18	48.07	47.74	40.14	67.85	91.93	77.34	100.05	82.75	70.14	68.76	59.16	807.10
1983	79.98	71.92	76.53	73.20	86.99	105.55	98.14	108.25	98.34	106.84	85.83	77.93	1,069.5
1984	100.34	118.86	110.21	110.50	114.35	122.45	169.47	127.72	114.80	98.79	80.51	74.56	1,342.6
1985	96.34	116.29	116.16	90.56	122.22	123.98	136.98	118.98					

Source: Department of Commerce T 544

Producer Price Index of Gray Synthetic Broadwovens Dec. 1975 = 100

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
1981	139.5	138.8	139.7	141.7	142.0	144.2	144.2	145.6	145.7	145.0	144.3	144.4	142.9
1982	146.2	145.2	144.6	144.2	143.8	143.9	143.3	143.0	142.3	142.7	142.3	142.5	143.7
1983	144.9	144.3	144.7	145.5	146.1	146.3	146.5	147.4	147.7	149.3	151.7	151.0	147.0
1984	148.8	151.2	152.3	152.4	153.5	153.3	153.3	153.6	151.9	152.5	151.0	150.1	152.1
1985	149.4	148.1	147.3	147.0	148.0	147.2	146.4	146.1	146.2	146.6	147.3	147.3	147.2
1986	147.7	148.0											

Source: Bureau of Labor Statistics. (0337-03) T 545

Rice

World milled rice production in 1985/86 was projected by USDA in March 1985 at 315 million tonnes, versus a record 319 million in 1984/85. Output by China, the world's largest producer, was 117 million tonnes, down 6 percent from the year before. Declines in China resulted from less favorable weather conditions in some areas and reduced price incentives. Production by Thailand, the largest exporter, was pegged at a record 13 million tonnes, up 8 percent from the previous year mainly because of timely rains. In India, yields were higher, resulting in an estimated 2 percent increase in output to 60 million tonnes.

World milled rice imports are estimated to have declined 7 percent in 1985/86, as some traditional rice importers have reached near self-sufficiency in output and other importing countries have been forced to reduce purchases because of financial difficulties. With three bumper harvests in a row, world rice stocks have been expanding. The 1985/86 world rice carryover is expected to rise nearly 8 percent over 1984/85. In 1985, large global supplies and stagnant import demand pressured world rice prices to the lowest levels since the 1960s.

In the U.S., rice production in 1985/86 is estimated at 4.38 million tonnes (milled equivalent), marginally below the previous year. Domestic use is expected to increase slightly. Milled exports in 1985/86 are placed at 1.85 million tonnes, compared with 1.96 million in 1984/85. In recent years, Iraq, Saudi Arabia, and the Philippines have been major markets for U.S. rice. U.S. exports have fallen well below the 1981 peak of 3.01 million tonnes as prices have remained high relative to world prices and as import demand has shrunk. Ending stocks in 1985/86 are expected to exceed the year earlier by 32 percent.

In the new U.S. farm bill, loan rates for rice have been substantially lowered. Furthermore, rice producers will be able to repay government loans (beginning with 1985 loans) at a world market price determined by formula. The whole kernel milled loan rate in 1986 is $12.44 per cwt. for long grain, compared with $14.53 in 1985, and $10.44 per cwt. for medium and short grain, down from $10.50 in 1985. The 1986 broken kernel rate for all classes is $4.98 per cwt., down from $6.02 in 1985. With respect to acreage set-asides, the farm bill authorizes USDA to require reductions of up to 35 percent of base acreage in years of heavy supplies. USDA indicates that the loan rate reduction may substantially help exports of U.S. rice, which has sometimes been twice the price of foreign varieties. A complete rebound in exports may be impossible due to increases in rice output by traditional importers, such as India and Indonesia.

Futures Market

Rice futures trading on the MidAmerica Commodity Exchange is scheduled to resume April 18, 1986, pending contract revisions. (The MidAmerica Commodity Exchange became affiliated with the Chicago Board of Trade on March 24, 1986.)

World Rice[3] Supply & Distribution In Millions of Metric Tons

	Production			Exports			Imports			Utilization			Stocks (End)		
Year	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
1981	6.6	392.2	398.8	3.0	10.1	13.1	—	13.1	13.1	2.1	270.1	272.2	.5	21.5	22.1
1982	8.3	404.4	412.5	2.5	9.3	11.8	—	11.8	11.8	2.2	279.2	281.5	1.6	19.7	21.3
1983	7.0	412.5	419.3	2.3	9.6	11.9	—	11.9	11.9	2.0	287.6	289.6	2.3	15.0	17.3
1984	4.5	448.2	451.2	2.1	10.4	12.5	—	12.5	12.5	1.8	306.3	308.1	1.5	15.8	17.3
1985[1]	6.3	461.7	464.7	1.9	9.5	11.4	—	11.4	11.4	1.9	312.1	314.0	2.0	19.8	21.9
1986[2]	6.2	457.1		2.2	9.5	11.7	—	11.7	11.7	1.9	311.0	312.9	2.8	21.1	23.9

[1] Preliminary. [2] Forecast. [3] Production is on rough basis; the rest are on milled basis. *Source: Foreign Agricultural Service, U.S.D.A.* T.547a

World Production of Rough Rice In Millions of Metric Tons

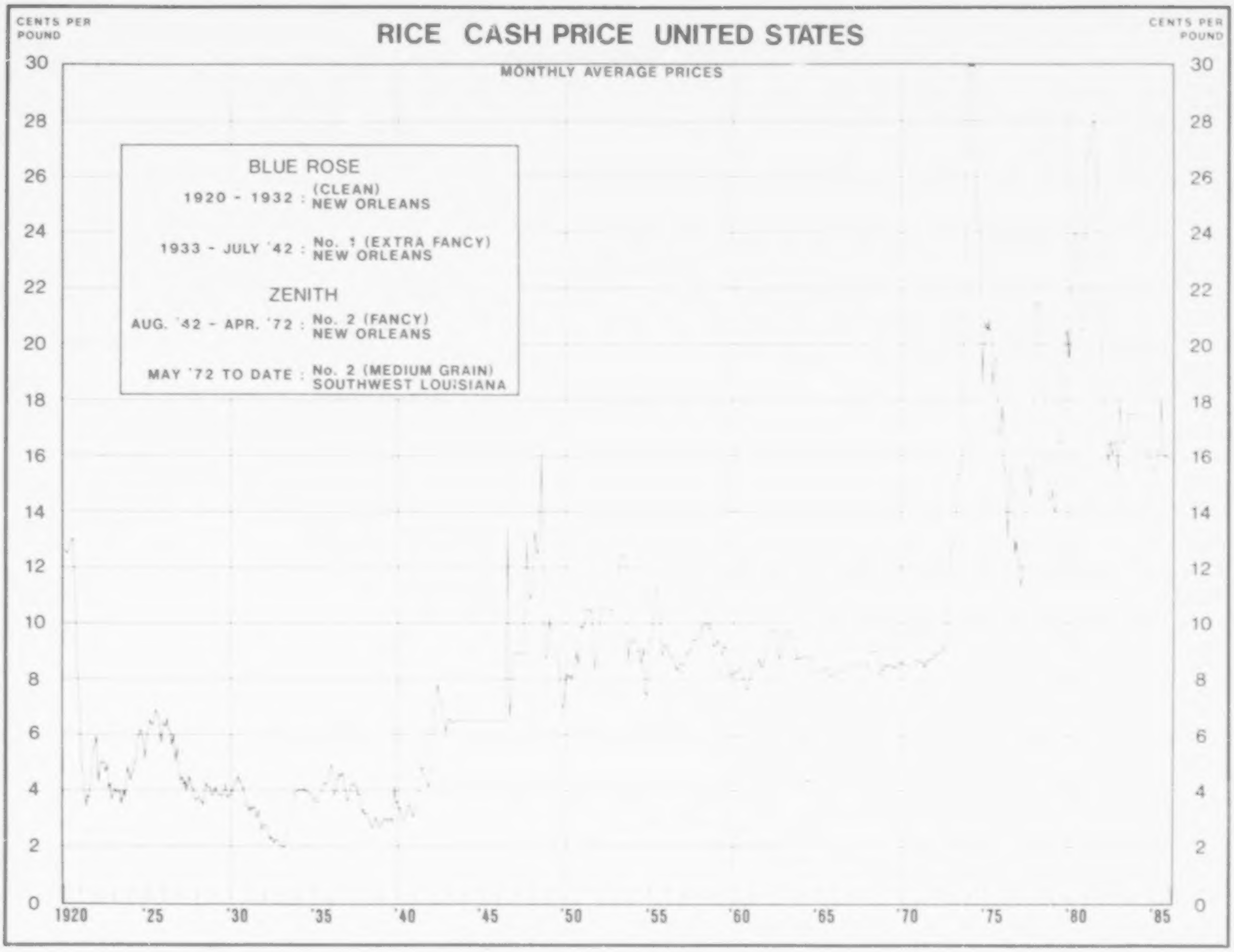
Crop Year	Brazil	Burma	China	Viet-nam	India	Japan	Indo-nesia	Rep. of Korea	Bang-ladesh	Philip-pines	Pakis-tan	Tai-wan	Thai-land	United States	World Total
1981–2	9.2	14.2	144.0	12.6	80.0	12.8	32.8	7.1	20.5	8.1	5.2	3.1	17.8	8.3	412.7
1982–3	7.8	14.4	161.2	13.8	70.7	12.8	33.6	7.3	21.3	7.7	5.2	3.1	16.9	7.0	419.5
1983–4	9.0	14.4	168.9	14.0	90.2	13.0	35.3	7.6	21.8	7.9	5.0		19.5	4.5	452.7
1984–5[1]	9.0	14.8	178.3	13.8	88.0	14.8	38.1	8.0	22.0	7.9	5.0		18.7	6.3	468.0
1985–6[2]	9.0	14.9	167.0		91.5	14.6	39.0	8.3	23.2		4.4		19.3	6.2	463.3

[1] Preliminary. [2] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T.547

World Exports of Rice (Milled Basis), by Country of Origin In Thousands of Metric Tons

Year	Aus-tralia	Argen-tina	Guy-ana	Burma	P.R. China	Egypt (U.A.R.)	Uru-guay	Pakis-tan	EC-12	Ja-pan	Ne-pal	Taiwan	Thai-land	United States	World Total
1981	335	—	78	674	583	134	215	1,127	812	795	43	92	3,049	3,008	13,128
1982	530	92	35	701	470	22	227	794	887	318	50	307	3,620	2,487	11,823
1983	281	68	45	750	580	21	189	1,299	847	321	0	533	3,700	2,331	11,925
1984[1]	370	115	47	727	1,168	50	155	1,050	772	102	20	210	4,528	2,129	12,567
1985[2]	400	165	35	450	1,000	20	240	962	903	0	50	26	3,993	1,906	11,415

[1] Preliminary. [2] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T.552



Average Wholesale Price of Rice No. 2 (Medium Grain)[1] Southwest Louisiana Dollars per cwt. Bagged

Year	Aug.	Sept	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Average
1976–7	13.5	12.5	13.0	12.3	12.3	11.3	11.8	12.1	13.3	15.6	15.5	15.3	13.2
1977–8	14.5	15.0	15.4	20.5	21.5	21.5	—	21.5	20.5	19.0	—	18.5	18.8
1978–9	17.5	14.5	14.5	14.5	14.8	14.0	14.0	14.0	16.5	16.5	16.5	16.5	15.3
1979–0	19.0	20.0	20.5	20.5	19.5	20.0	22.0	23.5	24.0	24.0	22.0	21.0	21.3
1980–1	20.5	20.8	21.6	24.4	26.4	27.0	27.1	27.5	27.6	28.0	28.0	27.8	25.6
1981–2	26.4	24.2	22.9	21.2	20.0	18.8	17.8	16.1	16.0	16.4	16.2	16.0	19.3
1982–3	16.5	16.5	16.5	16.7	17.8	17.3	16.5	16.5	16.5	17.1	17.5	17.5	16.9
1983–4	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
1984–5	16.0	16.0	15.5	15.5	15.5	15.5	15.5	16.0	16.2	16.3	18.0	16.2	16.0
1985–6[2]	16.0	16.0	16.0	16.0	16.0	16.0	15.7	15.5					

[1] U.S. No. 2—Broken not to exceed 4% [2] Preliminary *Source: Bureau of Labor Statistics (0213-0101)* T 549

U.S. Rice (Rough) Production by Type and Variety In Thousand Cwt.

Year	Long Grain	Medium Grain	Short Grain	Total	Year	Long Grain	Medium Grain	Short Grain	Total
1978	84,792	36,454	11,924	133,170	1982	93,424	51,342	8,871	153,637
1979	80,692	40,421	10,834	131,947	1983	64,318	27,388	8,014	99,720
1980	86,851	51,407	7,892	146,150	1984	96,029	35,304	7,477	138,810
1981	110,426	61,497	10,819	182,742	1985[1]	100,938	28,680	6,424	136,042

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T 548

Salient Statistics of Rice, Rough & Milled (Rough Equivalent) in the United States In Thousands of Cwt.

Year Beginning August	Supply				Distribution					Government Support Program					
					Domestic						Under Price Support				
	Stocks Aug. 1	Production	Imports[2]	Total Supply	Food[3]	Industry[4]	Seed	Total	Exports	Owned By CCC Aug. 1	Loans	Purchase Agree.	Total	Deliveries to CCC	Support Rate $ Cwt.
1980-1	25,679	146,150	—	172,100	38,400	11,000	5,100	64,200	91,400	1,700	24,973	—	24,973	—	7.12
1981-2	16,493	182,742	—	199,500	42,500	12,700	4,400	68,600	82,000	—	42,848	—	42,848	17,500	8.01
1982-3	48,987	153,637	—	203,100	37,300	13,500	3,200	62,900	68,900	17,500	65,375	—	65,375	6,120	8.14
1983-4[1]	71,440	99,720	—	171,900	33,000	12,800	3,300	54,700	70,300	22,320	40,184	766	40,950	23,866	8.14
1984-5[5]	46,909	138,810	—	185,719	35,700	13,800	2,800	59,700	61,000	25,000			55,200		8.00
1985-6[5]	64,700	136,042	—	200,742	37,400	14,000	2,600	60,000	59,000						8.00

[1] Preliminary. [2] Consists mostly of broken rice. [3] Includes shipments to territories and military food use. [4] Primarily for beer production. [5] Projected. *Source: Agricultural Marketing Service, U.S.D.A.*

T 551

Acreage, Yield, Production, and Prices of Rice in the United States

Crop Year	Acreage Harvested (1,000 Acres)			Yield Per Harvested Acre (In Lbs.)			Production 1,000 Cwt.			Farm Value of Production $1,000	Farm Price of Rough Rice $ Per Cwt.	Wholesale Prices ($ Per Cwt.)	
	Southern States	California	United States	Southern States	California	United States	Southern States	California	United States			Arkansas[2]	Houston[3]
1979-0	2,347	522	2,869		6,520	4,599	97,905	34,042	131,947	1,383,993	10.50	20.05	22.05
1980-1	2,747	565	3,312		6,440	4,413	109,764	36,386	146,150	1,873,007	12.80	25.30	25.55
1981-2	3,199	593	3,792		6,900	4,819	141,818	40,924	182,742	1,654,413	9.05	19.40	21.15
1982-3	2,727	535	3,262		6,700	4,710	117,740	35,848	153,637	1,246,608	8.11	16.80	18.70
1983-4	1,841	328	2,169		7,040	4,598	76,631	23,089	99,720	874,004	8.76	17.35	19.88
1984-5[1]	2,352	450	2,802			4,954	106,750	32,060	138,810	1,111,338	8.23	16.23	18.69
1985-6[1]	2,102	400	2,502		7,400	5,437	106,448	29,594	136,042				

[1] Preliminary. [2] F.O.B. mills, Houston, Texas (medium grain). From 1979-80 prices are at southwest Louisiana. [3] Houston, Texas (long grain). *Source: Economic Research Service, U.S.D.A.*

T 550

U.S. Exports of Milled Rice[1] by Country of Destination In Thousands of Metric Tons

Crop Year	Belg.-Lux.	South Africa	Canada	Un. Kingd.	South Korea	Nigeria	Indonesia	Italy	Bangladesh	Liberia	Saudi Arabia	Switzerland	Iraq	Iran	Total All Exports
1979-0	85.0	105.5	77.6	30.1	574.7	137.9	225.1	42.5	—	61.9	169.5	63.3	309.6	31.1	2,706
1980-1	101.6	112.4	93.3	19.3	1,048.8	283.2	138.8	11.5	—	85.1	257.0	69.5	71.4	—	3,028
1981-2	118.4	114.1	101.0	30.5	281.6	412.8	15.8	201.4	22.6	88.4	277.7	91.1	221.1	147.2	2,682
1982-3	114.9	109.3	100.6	26.2	187.8	168.7	63.4	11.6	67.3	91.3	279.1	57.2	279.2	—	2,219
1983-4[2]	135.3	154.5	94.1	4.2	98.9	—	81.6	51.0	55.7	83.5	285.7	65.1	274.8	0	2,272
1985-6[2]															1,796

[1] No adjustment of brown & parboiled rice has been made; treated as milled rice. [2] Preliminary. *Source: Bureau of the Census, Dept. of Commerce*

T 553

Exports of Rice From the United States In Millions of Pounds[1] (Clean Basis)

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Total
1979-0	310	316	426	320	546	584	557	584	518	585	540	644	5,930
1980-1	419	577	409	474	730	533	613	809	688	794	497	371	6,914
1981-2	453	470	532	583	458	479	515	399	487	661	538	370	5,945
1982-3	809	320	431	199	307	241	316	490	446	438	550	360	4,907
1983-4	488	624	460	378	359	299	220	462	432	420	431	314	4,587
1984-5	384	567	331	343	307	236	292	411	315	355	296	336	4,173
1985-6	380	489	420	290	283	277	163						

[1] 162 pounds rough—100 pounds clean. *Source: Department of Commerce*

T 554

Avg. Price Received by Farmers for Rice (Rough) in the U.S. In Dollars Per 100 Pounds (Cwt.)

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Average[1]
1979-0	10.00	9.81	10.30	9.83	8.41	9.88	11.00	11.70	11.60	11.30	10.20	10.80	10.50
1980-1	10.60	10.20	10.90	11.60	13.10	13.20	13.00	13.40	13.80	13.30	11.90	12.80	12.80
1981-2	11.80	10.70	10.20	9.86	9.34	9.34	9.46	9.46	8.54	8.55	8.54	8.25	9.05
1982-3	7.31	7.75	7.73	7.78	8.06	8.05	8.26	7.99	8.23	8.23	7.88	7.95	8.11
1983-4	8.41	8.48	8.80	8.80	8.66	8.57	8.85	8.63	8.49	8.24	8.20	8.18	8.76
1984-5[2]	8.22	8.17	8.08	8.13	8.08	8.09	7.72	8.17	8.20	7.91	7.83	7.54	8.23
1985-6[2]	7.84	7.81	7.68	7.83	7.71	7.90	7.86	7.60	7.40				

[1] Weighted average by sales. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.*

T 555

Rubber

World natural rubber production in the first half of 1985 rose a marginal 0.7 percent to 2.05 million metric tons (tonnes) compared with 1984 output during the same period, according to data released by the International Rubber Study Group (IRSG) in November, 1985. The increase in production occurred despite a normal "wintering" pattern compared with 1984, when little or no wintering took place. (The wintering period follows shortly after the dry season and lasts from 3 to 6 months as trees shed leaves and grow new ones. Yields decline during this period, which varies with geographic location, but is considered to be from about February to April in Malaysia. Drought tends to make wintering more severe, as refoliation is retarded.) Global production of synthetic rubber in the first half of 1985 was estimated by IRSG at 4.47 million tonnes, 1.1 percent lower than in the same period of 1984.

Consumption of natural rubber worldwide in the first six months of 1985 amounted to 2.2 million tonnes, according to IRSG data, up 3.8 percent from the corresponding period a year earlier. World use of synthetic rubber increased only 1.6 percent, to 4.52 million tonnes, in the first half of 1985.

World stocks of natural rubber at the end of June, 1985 were estimated by the IRSG at 1.615 million tonnes, about 3 percent below the 1.655 million tonnes on hand a year earlier. Global synthetic rubber stocks at mid-year 1985 were placed at 1.740 million tonnes, about 1.0 percent below the 1.760 million tonnes at the same time a year earlier.

For calendar year 1985, world natural rubber production rose less than 2 percent from the 1984 level while estimated consumption rose more than 2 percent, based on preliminary data of the IRSG. World stocks were estimated to have decreased slightly in 1985. Production of synthetic rubber was estimated to have dipped marginally.

Natural rubber production in 1985 was not uniformly higher than a year earlier. In Malaysia, the world's largest producer and exporter of natural rubber, output was estimated by the Malaysian Ministry of Primary Industries at about 1.46 million tonnes, down from 1.53 million tonnes in 1984. The decline was reportedly due to the heavy rainfall in the final quarter of 1985, which restricted tapping, and to the adverse effect on tapping activity of low rubber prices. High labor costs and a short labor supply (along with the continued switch in cultivation from rubber to oil palm and cocoa) in the estate sector in particular, were additional factors which limited production. Malaysian exports in 1985 also were lower than in 1984. The Ministry of Primary Industries pegged 1985 exports of natural rubber at 1.50 million tonnes compared with nearly 1.59 million tonnes in 1984. The ready availability of International Natural Rubber Organization stocks in major consuming countries and a relatively cheap and abundant supply of Indonesian rubber discouraged stock building by some major consuming countries.

Production of natural rubber in Indonesia in 1985 had been estimated to be in the vicinity of 1.15 million tonnes, with 1986 output projected at as much as 1.22 million. But, low prices likely curbed actual output for 1985, and competition from oil-based synthetic rubber should pare the 1986 production outlook. Exports of Indonesian rubber in 1985 were expected to fall short of the 1.06 million tonne target. Indonesian natural rubber exports in 1985 went primarily to the U.S., Singapore (for transshipment), the USSR, West Germany and Romania.

In the United States, consumption of natural rubber in 1985 showed little change from the 750.5 thousand tonnes used in 1984, but was well above 1983 consumption of 676.3 thousand tonnes. Year-end inventories were lower than at the end of 1984. Late in 1985, the Rubber Manufacturers Association projected 1986 U.S. consumption of natural rubber at around 735 thousand tonnes and synthetic rubber around 1.9 million tonnes. About 57 percent of total U.S. consumption of rubber was expected to be used for tire and tire products. A stable demand for new tires and modest growth in other segments of the rubber industry were expected over the next 5 years. Worldwide consumption of synthetic rubber is reported to have increased 3 percent in 1985 over 1984, and will go up by 15 percent by 1990, according to a long-range forecast by the International Institute of Synthetic Rubber Producers, an association of 47 rubber and chemical companies in 19 countries which produce about 97 percent of the Western World's synthetic rubber. Total new rubber consumption, including natural rubber, is expected to increase from about 12.8 million tonnes in 1985 to 14.7 million by 1990. The most significant gains are anticipated in Asia and Latin America. Synthetic rubber is projected to represent consistently about two-thirds of total rubber demand, and tire products should continue to consume about 55 percent of all synthetic rubber.

Natural rubber prices declined in 1985, influenced by a number of considerations including competition from synthetic rubber—a development that has been exacerbated since the collapse in petroleum prices—and the failure of some major natural rubber producing countries to curb production to match demand. The continued decline in prices forced additional purchases by the International Natural Rubber Organization (INRO) buffer stock manager. Under INRO rules, the INRO reference price was cut to 201.7 Malaysian/Singapore cents per kilogram when the buffer stockpile exceeded 300,000 tonnes. (From an early 1985 level of about 278,000 tonnes, the stockpile has risen to an estimated 400,000 tonnes.) Prices fell through the buffer stock "may buy" level of 177.00 cents in May and later dropped through the "must buy" 166.00 level which has since been revised to 161.00 cents. The lower and upper indicative price ranges are 150.00 and 270.00 cents, respectively. There is a cap of 550,000 tonnes on the buffer stock level, but the availability of funds for additional purchases up to that level is considered questionable. The International Natural Rubber Agreement has been extended to October, 1987.

Futures Markets

Rubber futures are listed for trading in Kuala Lumpur and Tokyo. Trading in London's No. 1A rubber futures contract expired in November, 1985.

World Rubber Production[1] In Thousands of Metric Tons

	Natural										Synthetic						
Year	Sri Lanka	India	Indonesia	Malaysia	Philippines	Thailand	Liberia	Brazil	China	World Total	Canada	W. Germany	Japan	United States	United Kingdom	USSR	World Total
1978	155.7	133.0	902.5	1,582	56.6	467.0	72.5	23.7	101.6	3,770	248.3	407.0	1,029	2,662	293.7	1,950	8,955
1979	152.7	147.2	905.0	1,570	63.3	531.2	75.0	25.0	108.3	3,870	282.5	418.5	1,107	2,720	277.7	2,025	9,370
1980	133.2	155.4	1,020	1,530	69.9	501.1	77.5	27.8	113.0	3,850	252.8	389.9	1,094	2,215	211.8	2,040	8,690
1981	123.9	150.7	867.5	1,510	75.3	504.0	77.5	30.3	127.7	3,705	263.3	396.8	1,010	2,225	226.2	2,000	8,525
1982	126.2	165.9	880.0	1,494	74.2	552.2	67.5	32.8	152.6	3,750	181.7	383.8	930.7	1,817	246.3	1,950	7,840
1983	140.0	168.0	997.2	1,564	75.0	587.2	65.0	35.2	172.4	4,025	182.0	418.0	1,003	1,987	262.3	1,970	8,300
1984[2]	141.9	183.9	1,115	1,529	84.0	628.6	76.0	36.0	190.0	4,260	217.8	437.6	1,161	2,219	288.8	2,125	9,100
1985[3]	145	186	1,050	1,500	85	640	78	38	195	4,280	215	435	1,165	2,100	275	2,300	9,070
1986																	

[1] Including rubber in the form of latex [2] Preliminary [3] Estimate *Source: Rubber Study Group*

T 556

World Consumption of Natural and Synthetic Rubber In Thousands of Metric Tons

	Natural									Synthetic						
Year	Australia	Brazil	Canada	France	W. Germany	Japan	Un. Kingdom	United States	World Total	Canada	France	W. Germany	Japan	Un. Kingdom	United States	World Total
1978	41.1	72.5	89.1	163.2	184.9	355.0	139.2	770.8	3,750	203.9	296.2	429.5	741.0	313.4	2,519	8,860
1979	45.4	75.9	93.8	177.0	184.5	390.0	137.5	740.4	3,880	232.0	317.8	447.1	830.0	301.1	2,501	9,210
1980	42.2	81.1	80.0	187.7	179.7	427.0	130.8	585.0	3,760	200.0	341.9	421.3	885.0	248.2	1,980	8,780
1981	41.9	74.4	82.0	167.2	169.1	436.0	120.0	635.0	3,700	210.0	303.4	396.2	851.0	247.0	2,022	8,545
1982	36.4	67.8	76.0	156.8	171.2	439.0	118.0	585.0	3,680	182.0	265.2	386.9	797.0	238.0	1,765	8,000
1983	30.9	70.2	87.0	155.9	179.5	504.0	120.0	665.0	3,985	195.0	276.6	395.8	851.0	228.0	1,883	8,335
1984[1]	35.9	88.7	102.0	162.0	190.0	525.0	118.0	750.7	4,240	280.0	287.0	403.0	915.0	247.0	2,061	8,985
1985[2]	38	90	104	160	195	530	120	750	4,310	211	285	407	920	245	2,050	9,085
1986																

[1] Preliminary [2] Estimate *Source: Rubber Study Group*

T 557

World Stocks[1] of Natural Rubber, January 1 In Thousands of Metric Tons

	In Producing Countries								In Consuming Countries (Commercial Stocks)										
Year	Brazil	Vietnam	Sri Lanka	Indonesia	Malaysia (Peninsular)	Singapore	Thailand	Total	Australia	Canada	China	France	W. Germany	India	Japan	United Kingdom	United States	Total
1979	19.1	4.0	47.4	75.0	245.5	35.8	60.3	505.0	2.7	8.3	137.5	20.1	13.7	42.9	90.7	29.0	142.3	730.0
1980	20.8	4.0	61.3	75.0	240.1	51.1	44.7	515.0	3.8	7.3	135.0	20.3	13.5	54.6	76.5	27.6	144.6	735
1981	20.8	4.0	58.5	75.0	254.8	46.3	61.0	535.0	3.2	6.0	150.0	19.6	13.5	40.1	106.9	21.4	126.7	770
1982	19.6	4.0	33.7	75.0	286.3	43.8	60.0	535.0	2.7	9.9	140.0	16.8	14.5	45.9	116.9	20.0	131.9	830
1983	18.5	4.0	11.3	75.0	266.0	26.9	36.6	570.0	4.2	6.9	137.5	9.5	14.5	60.6	90.8	17.8	95.4	860
1984	15.3	5.0	9.6	75.0	254.9	32.2	39.6	545	1.8	7.4	187.5	9.0	14.5	47.4	81.0	16.8	80.8	880
1985[2]	11.2	6.0	10.2	95.0	228.8	36.8	41.3	545	2.8	8.5	192.5	4.0	15.0	58.0	70.7	15.8	96.4	900
1986[3]	11	6	13.4	90	173	28.5	35	495	3	10	158	4	12	45	72	10	81	805

[1] Exclusive of "Stock Afloat" and unreported gov't. stockpiles [2] Preliminary [3] Estimate. *Source: Rubber Study Group* (London)

T 558

Net Exports of Natural Rubber from Producing Areas In Thousands of Metric Tons

Year	Burma	Kampuchea	Sri Lanka (Ceylon)	Indonesia	Malaysia (Peninsular)	Sabah	Sarawak	Thailand	Vietnam	Other Asia	Liberia	Nigeria	Other Africa	Papua New Guinea	World Total
1979		9.5	128.2	861.0	1,537	33.2	39.5	517.8	34.0	27.8	75.0	26.4	51.3	4.0	3,325
1980		—	120.9	976.1	1,416	30.9	35.2	456.8	33.3	33.3	76.5	14.6	59.2	4.0	3,270
1981		4.0	132.5	808.7	1,402	25.5	28.2	476.0	33.7	30.8	76.9	23.6	57.5	4.5	3,110
1982		7.5	131.3	801.4	1,317	21.7	15.9	546.7	32.3	24.2	67.5	26.8	57.8	2.3	3,065
1983		10.0	125.2	938.0	1,498	21.5	18.9	552.5	35.8	19.0	65.0	28.8	62.0	2.7	3,360
1984[1]		12.0	126.2	1,010	1,484	25.2	18.0	595.2	43.0	19.0	76.0	28.8	65.5	3.0	3,525
1985[2]		12	125	950	1,450	24	17	610	43	21	78	29.1	67	3	3,500

[1] Preliminary [2] Estimate. *Source: Rubber Study Group* (London)

T 559

RUBBER

U.S. Imports of Natural Rubber (Includes Latex & Guayule) In Thousands of Long Tons

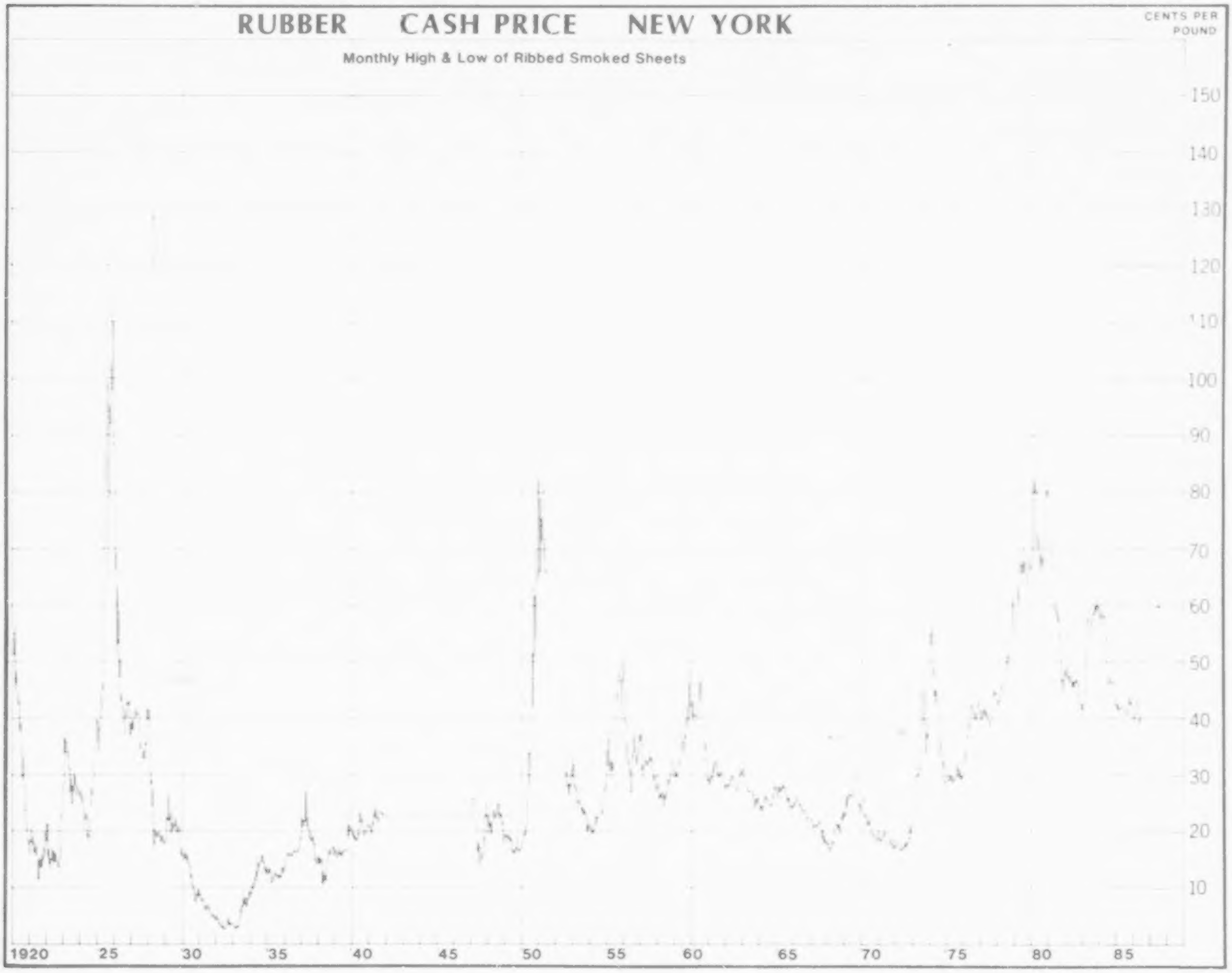
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total[1]
1980	76.8	56.0	74.0	38.9	55.3	44.5	38.5	31.4	55.9	31.8	50.3	45.1	598.3
1981	30.06	86.64	53.38	67.62	66.36	50.47	41.59	43.40	62.76	69.42	56.23	49.13	662.4
1982	50.99	59.33	45.71	53.86	56.19	63.39	38.67	54.35	40.60	54.36	51.37	49.45	618.3
1983	33.01	49.63	48.54	62.11	63.44	65.20	50.41	31.90	44.22	67.83	71.06	54.71	642.1
1984	87.84	57.82	75.45	69.18	70.25	41.45	73.81	56.23	67.46	61.95	62.36	62.21	786.0
1985[2]	71.64	71.68	88.04	63.98	84.66	48.09	59.97	45.30	40.70	69.44	71.81	64.49	779.8

[1] Includes latex and guayule [2] Preliminary *Source: Department of Commerce* T 560

Average Spot Crude Rubber Prices (Smoked Sheets[1]) in New York In Cents Per Pound

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
1980	73.0	86.5	73.3	72.3	69.0	68.5	67.3	68.0	72.8	79.0	—	73.0	73.0
1981	71.3	69.0	65.0	59.0	58.0	57.0	56.0	54.0	50.4	—	45.6	48.3	57.6
1982	48.8	46.5	47.0	45.3	45.3	46.1	46.5	46.8	44.5	42.6	42.1	41.8	45.3
1983	44.0	48.5	57.8	57.8	56.8	54.5	58.3	59.3	60.5	60.5	58.3	—	56.0
1984	57.3	58.3	58.0	56.8	51.8	47.0	46.0	46.0	46.0	43.0	42.8	42.0	49.6
1985	42.3	42.3	41.8	42.3	40.8	42.0	40.3	41.8	41.8	43.8	42.5	39.8	41.8
1986													

[1] No. 1, ribbed, plantation rubber *Source: Bureau of Labor Statistics (07-11-02.01)* T 561



Consumption of Natural Rubber in the United States In Thousands of Metric Tons

Year	Jan.	Feb.	Mar.	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec.	Total
1976	71.6	59.6	71.7	66.7	44.2	67.5	50.5	42.0	76.2	64.5	56.9	59.4	730.73
1977	70.2	66.8	74.5	68.5	66.8	68.2	50.4	62.8	64.6	63.6	61.3	62.5	780.13
1978	59.2	61.1	63.8	61.2	68.0	61.9	51.7	69.1	65.6	69.5	70.9	62.8	764.65
1979	68.3	66.5	74.5	61.8	60.2	59.0	57.9	63.2	57.7	65.2	55.6	47.9	739.00
1980	63.0	57.3	55.7	46.9	42.3	41.3	38.8	43.2	49.4	49.5	50.3	48.7	586.15
1981	49.0	52.6	55.4	55.1	53.9	59.5	56.4	51.1	52.1	57.3	49.7	42.6	634.67
1982	55.3	59.9	50.2	57.8	63.3	68.9	32.7	65.6	48.8	53.3	48.9	56.0	660.61
1983	64.5	44.5	55.3	55.3	56.9	67.0	48.8	39.2	50.2	75.3	69.7	49.6	676.3
1984	73.8	56.8	83.1	68.2	65.1	42.4	73.9	56.1	63.7	58.3	55.4	54.1	750.7
1985[1]	71.8	65.7	91.5	51.7	89.0	45.2	55.4	47.3	68.1	47.2	65.7		

[1] Preliminary. *Source: Rubber Manufacturers' Association* T.562

Stocks of Natural Rubber in the United States, Beginning of Month In Thousands of Metric Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct	Nov	Dec.
1976	105.4	99.8	158.2	127.0	140.9	104.7	102.3	106.8	92.6	104.9	64.5	71.9
1977	125.3	119.9	127.0	123.8	118.4	120.5	119.7	131.7	139.7	133.0	137.5	129.4
1978	127.6	123.3	116.4	117.1	115.6	122.8	123.4	125.4	126.1	127.7	133.5	124.0
1979	125.6	121.4	115.6	116.1	136.6	130.2	137.7	146.0	144.4	135.6	135.0	124.5
1980	132.1	131.4	135.3	141.4	152.4	145.7	147.4	149.9	138.5	132.9	129.5	123.1
1981	126.7	128.0	125.4	122.8	127.6	124.1	119.5	113.5	111.2	114.4	123.0	130.5
1982	142.4	127.1	126.5	121.3	116.6	110.8	105.4	110.2	97.7	89.0	90.2	95.4
1983	95.4	91.8	95.0	87.4	93.8	100.0	97.9	99.2	90.7	83.3	74.8	75.9
1984	80.8	95.2	95.7	87.7	87.8	91.4	88.5	87.0	84.8	86.2	87.3	91.3
1985[1]	96.4	94.3	97.3	91.4	101.9	95.9	95.6	97.9	93.9	84.9	81.1	85.1

[1] Preliminary. *Source: Rubber Manufacturers' Association* T.563

Stocks of Synthetic Rubber in the United States, Beginning of Month In Thousands of Metric Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct	Nov	Dec.
1976	369.9	405.1	406.4	386.7	416.4	453.9	472.7	499.1	513.6	475.5	464.7	449.0
1977	458.1	441.4	431.8	407.6	412.9	409.3	402.2	430.4	430.3	422.3	424.5	424.0
1978	426.8	441.0	427.9	434.5	446.9	441.4	433.1	456.5	445.1	435.8	425.3	419.9
1979	424.1	407.1	400.0	393.6	398.9	391.5	401.3	411.3	402.2	402.8	389.9	402.1
1980	402.9	439.9	436.2	427.6	452.2	445.1	429.2	391.2	372.3	339.7	325.4	328.9
1981	341.8	364.5	354.6	347.0	365.9	368.3	359.8	369.4	353.4	351.9	352.6	364.4
1982	349.0	333.3	336.8	349.2	358.3	364.4	352.9	342.8	326.6	304.3	318.8	294.6
1983	269.7	281.0	284.8	283.5	283.8	294.3	290.8	304.8	269.8	256.2	250.7	276.9
1984	277.9	284.1	277.2	277.0	294.6	305.0	302.3	309.3	300.6	312.0	301.4	285.9
1985[1]	274.1	281.2	271.8	288.6	294.0	292.5	286.4	295.8	413.5	397.3	374.9	367.0

[1] Preliminary. *Source: Department of Commerce* T.564

Production of Synthetic Rubber in the United States In Thousands of Metric Tons

Year	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept	Oct	Nov.	Dec	Total
1976	191.5	193.1	210.5	204.2	191.4	176.3	156.7	160.7	192.7	209.5	206.3	210.9	2,304
1977	204.0	193.0	213.1	204.8	211.5	201.8	191.3	198.8	201.7	205.6	195.4	196.6	2,418
1978	198.2	193.8	210.3	214.9	211.2	194.4	195.9	205.7	207.4	212.3	212.1	219.1	2,475
1979	207.9	200.8	232.1	216.7	223.3	210.7	202.9	202.8	210.0	213.8	206.0	207.6	2,535
1980	195.6	194.7	206.8	192.4	159.6	129.6	110.3	123.7	149.8	174.6	178.5	193.7	2,015
1981	193.5	169.7	200.4	180.9	175.9	158.2	161.5	159.7	168.4	170.0	157.7	125.5	2,021
1982	155.6	162.3	187.9	171.7	171.1	156.8	139.7	145.5	147.9	154.4	122.4	116.5	1,829
1983	155.2	153.9	170.1	160.5	171.1	164.6	154.4	146.7	159.6	174.5	189.4	160.2	1,936
1984	183.3	173.0	190.3	193.2	191.4	183.7	166.7	178.4	173.0	179.7	158.3	147.5	2,095
1985[1]	169.9	161.6	182.1	166.0	154.2	142.5	150.4	154.2	160.3	153.6	149.2		

[1] Preliminary. *Source: Department of Commerce* T.565

Consumption of Synthetic Rubber in the United States In Thousands of Metric Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1976	183.8	195.0	221.9	169.6	151.5	146.7	118.2	142.5	220.2	213.3	211.9	200.6	2,175
1977	217.6	203.6	232.6	203.1	218.8	208.6	161.1	209.8	209.0	205.7	190.9	203.4	2,464
1978	193.7	193.2	206.2	197.5	212.7	194.7	170.6	213.9	211.7	220.3	212.1	209.8	2,436
1979	226.0	201.4	224.4	201.5	212.0	179.6	176.5	202.3	187.9	202.8	174.5	163.3	2,341
1980	170.8	176.1	191.1	148.9	135.7	120.1	131.0	133.7	166.0	167.9	157.7	155.1	1,854
1981	153.0	166.7	194.0	144.9	167.1	154.1	144.7	165.0	163.5	163.8	141.1	131.9	1,890
1982	153.3	140.7	154.3	145.3	148.5	154.5	135.8	150.5	158.1	131.0	136.8	136.1	1,757
1983	131.7	140.2	158.2	146.3	146.2	156.7	135.6	170.3	170.5	180.4	158.2	147.2	1,828
1984	177.5	175.4	180.5	166.7	167.1	171.0	147.1	173.9	151.5	184.1	166.3	147.2	1,984
1985[1]	155.8	169.5	159.6	154.8	152.7	143.6	139.8	150.6	171.6	174.3	154.0		

[1] Preliminary. *Source: Department of Commerce* T.566

Exports of Synthetic Rubber from the United States In Thousands of Long Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1976	21.24	22.55	25.15	21.38	22.55	22.48	24.75	22.70	20.59	21.59	19.86	21.13	267.99
1977	19.11	20.97	24.34	21.48	22.06	20.78	24.72	14.86	26.15	14.59	13.80	17.13	239.98
1978	16.94	18.86	22.55	19.48	24.90	22.28	19.35	20.04	20.77	22.22	23.81	23.77	254.96
1979	23.62	22.29	27.74	29.43	28.74	34.61	34.51	39.37	34.90	38.61	36.53	34.76	385.11
1980	31.46	34.48	41.98	41.68	46.88	37.33	36.54	30.46	25.51	33.45	30.72	32.31	422.78
1981	31.21	31.65	38.73	31.77	32.00	28.55	26.27	21.97	24.40	23.94	22.49	21.65	334.63
1982	27.76	23.46	31.18	26.53	24.73	25.23	20.40	22.04	22.83	21.13	20.47	18.86	284.62
1983	20.24	18.61	24.44	24.91	31.66	24.37	20.15	21.08	22.01	20.14	23.75	23.67	275.01
1984	24.12	22.22	28.09	29.13	29.42	28.02	29.58	30.24	29.95	25.54	25.92	25.68	327.93
1985	23.86	22.68	28.94	26.23	30.38	27.25	22.21	24.95	27.60	25.33	22.13	25.44	307.00

Source: Department of Commerce T.567

Production of Auto. Pneumatic Casings[2] & Motor Vehicle Registrations in the U.S. In Ths. of Casings

	Total Production of Tires													Regis.[1]
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	(Dec. 31)
1976	17,598	18,200	20,552	16,085	9,856	10,453	8,025	8,954	18,096	21,113	18,827	20,194	187,953	138.5
1977	20,638	20,094	22,640	20,087	19,512	20,734	15,050	19,495	19,321	18,926	17,716	17,425	231,638	143.8
1978	18,290	18,319	18,987	18,828	19,148	18,946	15,108	19,245	19,155	20,497	18,299	18,869	223,406	148.8
1979	20,352	19,592	21,807	18,609	18,544	15,603	14,904	16,911	15,985	17,775	14,480	12,340	206,687	154.1
1980	15,188	15,059	15,082	13,678	11,370	10,716	10,206	12,057	13,911	15,790	12,861	13,346	159,263	155.9
1981	15,434	15,614	16,805	15,438	15,157	15,447	14,321	15,443	15,894	16,604	13,750	11,855	181,762	158.5
1982	14,866	15,387	17,051	15,077	14,856	15,669	12,293	14,835	15,528	15,381	13,585	13,972	178,500	159.5
1983	15,497	14,992	15,370	16,325	15,653	15,473	12,570	16,440	16,360	16,734	15,136	15,483	186,923	161.9
1984	16,749	17,498	19,122	16,988	18,043	18,557	15,546	18,078	17,333	19,136	16,645	15,682	209,375	
1985[3]	18,381	17,375	18,704	17,388	16,781	15,216	12,989	16,635	16,844	17,626	15,198	13,786	196,923	

[1] Registrations, in millions, of all privately & publicly owned vehicles (except military). [2] Passenger cars, buses, trucks & motorcycle tires. [3] Preliminary. *Sources: Rubber Manufacturers' Association; Motor Vehicle Mfg. Association* T.568

Stocks of Auto. Pneumatic Casings & Passenger[1] Car Registrations in the U.S. In Ths. of Casings

	Total Stocks of Tires												Regis.[1]
Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1	(Dec. 31)
1976	50,020	53,172	55,395	54,837	49,125	40,259	32,405	25,581	21,285	24,594	27,581	30,200	110.2
1977	34,768	39,010	43,212	45,616	45,832	46,231	44,887	43,460	45,229	44,542	43,841	45,176	113.7
1978	47,181	51,523	54,621	51,986	50,006	49,277	46,293	44,280	44,057	41,796	40,135	40,394	116.6
1979	43,472	47,212	51,284	52,223	53,540	53,033	46,362	49,397	48,422	46,002	44,357	44,546	120.2
1980	44,873	46,760	49,993	50,471	49,220	46,972	42,817	40,079	37,057	33,730	32,112	32,363	121.7
1981	33,298	41,226	44,402	45,217	44,713	43,480	41,445	39,998	39,601	38,986	39,487	41,112	122.6
1982	40,863	42,904	46,254	47,817	46,583	45,337	43,475	40,763	40,192	38,685	38,116	38,436	122.8
1983	39,955	43,839	45,483	50,287	51,921	42,395	39,622	36,989	35,541	32,854	31,530	31,676	124.4
1984	33,340	35,450	37,615	38,529	38,026	37,693	37,678	36,365	37,199	37,685	37,277	37,995	
1985[2]	39,623	41,948	45,905	48,875	49,168	49,063	46,909	44,349	43,553	41,514	40,425	40,023	
1986[2]	39,823												

[1] Registrations, in millions, of privately and publicly owned passenger cars (except military). [2] Preliminary. *Sources: Rubber Manufacturers' Association; Motor Vehicle Mfg. Association* T.569

Rye

Carry-in U.S. rye stocks for the 1985/86 crop year were 19.9 million bushels. The high level of production in 1984/85, placed at 32.5 million bushels, boosted beginning stocks 43 percent above the year earlier level. Rye production in 1985/86 was expected to decline to 20.6 million bushels.

Acreage harvested was estimated at 717,000 acres, down from 981,000 harvested in 1984/85, and average yield was expected at 28.8 bushels per acre, down from the record 33.1 average yield in 1984/85. Weather-related yield losses in South Dakota, North Dakota and Minnesota were expected to be somewhat offset by increased yields in Georgia, the fourth largest rye producing state.

A slight increase in imports, to 1.5 million bushels from 600,000 in 1984/85, combined with the lowered production indicated total supply at 42.0 million bushels in 1985/86, according to the USDA. Total supply in 1984/85 was 44.4 million bushels.

Total use was expected at 24.0 million bushels, consistent with total use in 1984/85 of 24.5 million. Ending stocks were projected at 18 million bushels.

U.S. rye seedings in the fall of 1985 for harvest in 1986 declined 7 percent to 2.39 million acres from seedings of 2.56 million in 1984, according to the USDA.

Beginning world rye stocks in 1985/86 totaled 4.0 million tonnes, an increase of 1.4 million from the previous year. Production was estimated at 30.6 million, down 2.2 million from 1984/85. Production in Poland, a major rye producer, was expected to fall 2.0 million tonnes in 1985/86 because of reduced acreage and yields. The decline in U.S. production also contributed to lower world production in 1985/86, while output in the USSR was expected to be slightly higher than a year ago.

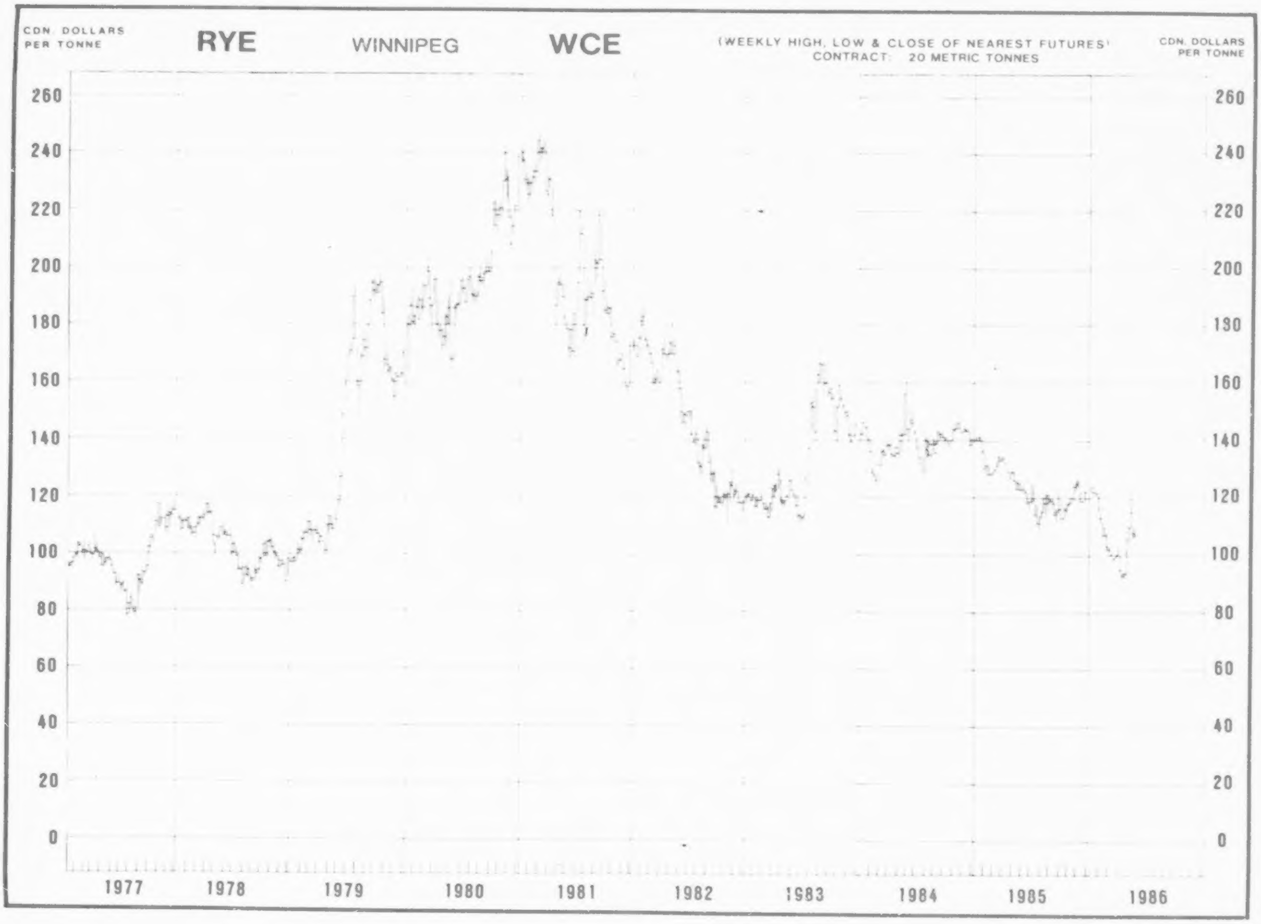
World consumption was expected to decline about 1.0 million tonnes to 30.2 million in 1985/86. With imports and exports both expected at 1.0 million tonnes, ending stocks for 1985/86 were projected at about 4.0 million.

U.S. Government Price Support

The national average loan rate for 1985-crop rye was $2.17 per bushel. For the 1986 crop, the loan rate is $1.63. There is no target price for rye.

Futures Market

Rye futures are traded on the Winnipeg Commodity Exchange.



RYE

World Production of Rye In Thousands of Metric Tons

Crop Year	Argentina	Austria	Canada	Czechoslovakia	Denmark	France	Germany West	Germany East	Hungary	Netherlands	Poland	Spain	Turkey	USSR	United States	World Total
1980–1	155	383	448	575	199	405	2,184	1,917	139	39	6,566	284	525	10,205	419	25,268
1981–2	149	320	927	544	208	342	1,793	1,797	116	29	6,731	212	520	9,500	478	24,373
1982–3	148	348	933	583	235	327	1,703	2,119	120	26	7,792	169	430	14,000	496	30,108
1983–4[1]	130	348	828	751	315	293	1,646	2,092	136	26	8,781	253	380	14,600	689	31,421
1984–5[2]	140	381	663	710	608	359	1,983	2,502	170	25	9,500	325	360	13,400	825	32,747
1985–6[2]															524	

[1] Preliminary [2] Estimate *Source: Foreign Agricultural Service, U.S.D.A.* T 570

Salient Statistics of Rye in the United States

Year Begin June 1	Supply: Stocks, June 1: Privately Owned[2]	Supply: Stocks, June 1: Gov't[3]	Supply: Total Stocks	Supply: Production	Supply: Imports	Supply: Total Supply	Disappearance: Domestic Use: Food	Disappearance: Domestic Use: Alc. Beverages	Disappearance: Domestic Use: Seed	Disappearance: Domestic Use: Feed[5]	Disappearance: Domestic Use: Total	Disappearance: Exports	Disappearance: Total Disappearance	Acreage: Planted	Acreage: Harvested for Grain	Yield Per Harvested Acre
	Thousands of Bushels													Mil. Acres		Bushels
1980–1	12,000	192	11,970	15,958	10	27,900	3,515	2,050	4,150	6,600	16,400	7,494	23,900	2,488	650	24.6
1981–2	4,000	145	4,030	18,187	432	22,600	3,458	2,242	4,160	8,200	18,100	1,529	19,600	2,566	685	26.6
1982–3			3,012	19,533	3,043	25,600	3,315	2,256	4,400	9,600	19,600	194	19,800	2,533	677	28.9
1983–4			5,822	27,116	1,600	34,500	3,500	2,100	4,800	11,800	22,200	1,000	23,200	2,707	896	30.3
1984–5[1]			11,300	32,463	600	44,400	3,500	2,000	4,500	14,100	24,100	400	24,500	2,971	981	33.1
1985–6[4]			19,900	20,637	1,500	42,000	3,500	2,100	4,600	13,300	23,500	400	23,900	2,563	717	28.8

[1] Preliminary [2] Includes total loans [3] Uncommitted, gov't only [4] Forecast [5] Residual, approximates total feed use *Source: Economics Service, U.S.D.A.* T 571

Production of Rye in the United States In Thousands of Bushels

Year	Illinois	Indiana	Kansas	Michigan	Minnesota	Georgia	Nebraska	No. Dakota	Ohio	Oklahoma	Oregon	So. Dakota	Virginia	Texas	Wisconsin	So. Carolina
1979	391	208	504	625	2,275	2,310	770	4,200	155	910	144	5,700	384	513	368	609
1980	368	182	210	504	1,900	1,995	666	1,470	231	816	150	4,030	325	494	368	616
1981	336	234	252	532	2,883	2,730	924	2,560	150	680	150	3,220	364	475	408	726
1982	299	260	240	522	3,300	1,470	1,269	2,400	155	736	116	4,680	364	504	300	621
1983	336	270	220	600	4,960	1,470	1,265	4,320	210	780	100	8,740	312	450	300	320
1984	308	336	312	588	6,650	1,760	1,392	5,400	175	704	140	10,800	378	240	216	546
1985[1]	256	308	300	651	3,300	2,070	1,242	2,640	172	828	111	4,440	312	400	234	532

[1] Preliminary, December estimate *Source: Crop Reporting Board, U.S.D.A.* T 572

Month End Open Interest of Rye Futures in Winnipeg In 20 Tonne Units

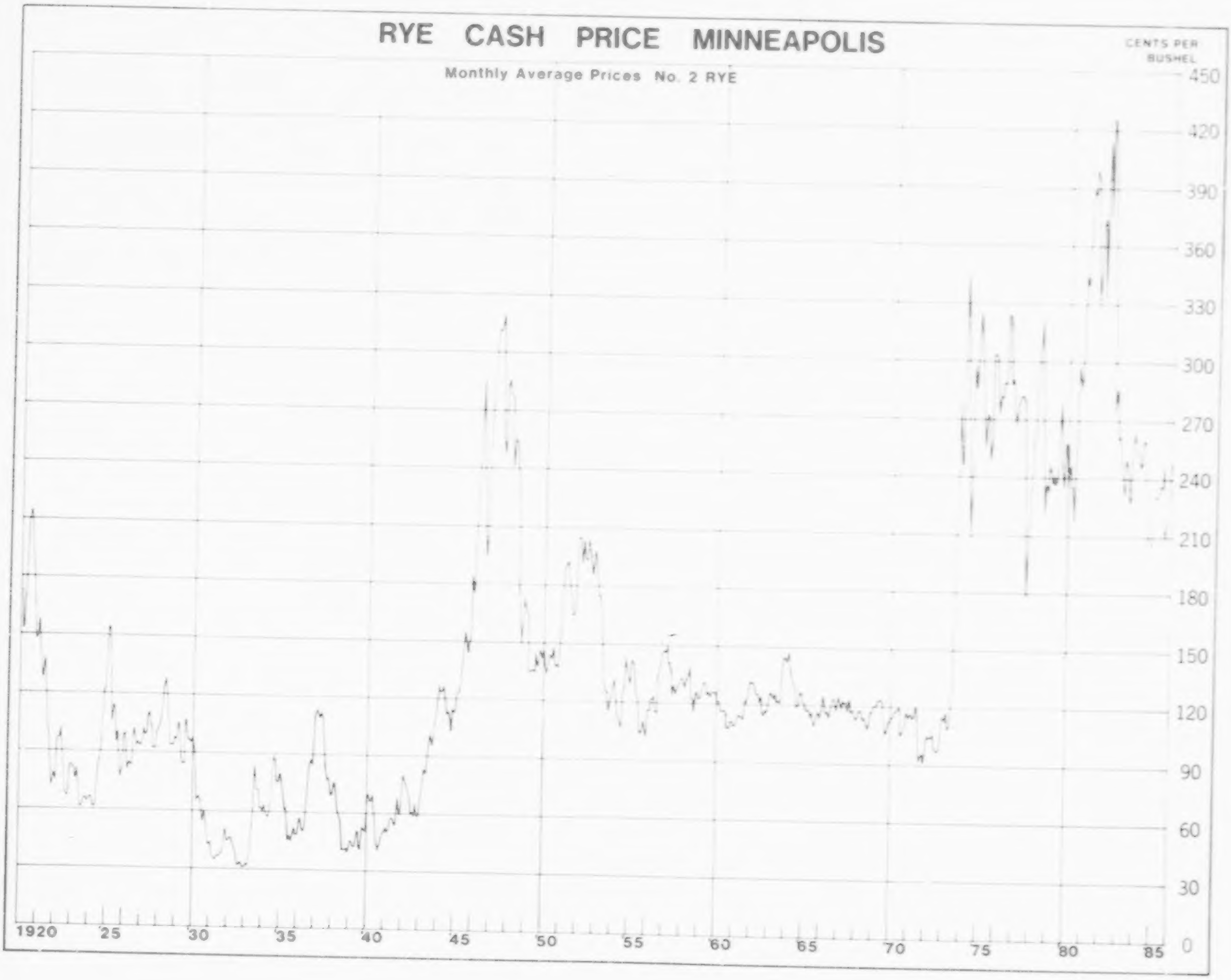
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1980	4,648	5,028	5,379	6,172	3,313	5,229	5,348	4,839	5,814	6,106	4,250	3,428
1981	3,876	4,811	3,704	3,640	2,948	3,368	5,028	6,440	5,251	2,516	4,404	3,828
1982	3,739	3,622	3,219	3,583	4,426	3,008	2,268	4,286	5,250	4,052	3,773	3,244
1983	3,227	3,628	3,097	4,625	4,834	4,935	7,883	7,915	3,665	4,494	3,110	3,054
1984	2,224	4,566	3,980	3,883	3,731	3,023	2,888	5,430	7,098	6,320	5,894	4,158
1985	4,267	4,826	4,175	4,227	3,893	3,919	4,031	5,022	4,872	5,478	4,289	3,786
1986	4,287	4,335	3,302	4,211								

Source: Winnipeg Commodity Exchange T 577

U.S. Rye Crop Production Reports and CCC Operations In Thousands of Bushels

Year Begin June 1	Official Crop Reports				National Average Support Rate						Total Stocks Ending May 31			
	July 1	Aug. 1	Dec. 1	Final	$ Per Bushel	% of Parity	Placed Under Loan	Direct Purchases	Total	Delivered to CCC	Ending Carryover[1]	CCC Uncommitted	Privately Owned[3] Under Loan[4]	Privately Owned[3] Other
1977–8	17,787	18,242	16,998	16,543	1.70	61		—	900	—	4,418		—	
1978–9	28,518	28,567	26,160	24,065	1.70	56		—	3,000	—	4,137		—	
1979–0	23,638	23,736	24,549	21,887	1.79	49			2,000	—	8,973		—	
1980–1	15,784	16,189	16,265	15,958	1.91	51			450	—	11,970		—	
1981–2	16,743	17,083	18,621	18,187	2.04	48			500	—	4,030			
1982–3[2]	20,119	19,924	20,817	19,533	2.17	48			1,600	—	3,012			
1983–4[2]	26,058	25,698	28,152	27,116	2.25						5,822			
1984–5[2]	29,903	30,184	32,392	32,463	2.17						11,300			
1985–6[2]	19,255	19,298	20,637	20,637	2.17						19,900			

[1] Old-crop rye under loan at end of crop year. [2] Preliminary. [3] Derived by subtracting CCC stocks & loans outstanding from ending carryover. [4] Includes previous crops under reseal. *Source: Economic Research Service, U.S.D.A.* T.573



RYE

Average Price of Cash Rye No. 2 at Minneapolis In Cents per Bushel

Year	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Average
1979–0	279	247	235	257	249	235	245	235	235	218	244	266	247
1980–1	297	287	292	307	344	340	352	363	389	387	396	394	346
1981–2	352	330	356	371	374	334	394	414	375	426	410	397	378
1982–3	342	276	286	260	261	256	251	246	231	250	244	232	261
1983–4	227	256	265	256	254	252	251	245	250	260	258	244	252
1984–5	227	209	207	206	221	227	231	230	235	236	235	248	226
1985–6	210	215	223	233	248	259	246	228	226				

Source: Economic Research Service, U.S.D.A. T 575

High, Low & Closing Prices of May Rye Futures in Winnipeg In Canadian Dollars per Tonne

Year of Delivery		Year Prior to Delivery							Delivery Year					Life of Delivery Range
		June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
1980	High	154.00	188.00	167.50	189.40	191.00	181.00	175.00	192.50	195.00	205.50	196.50	195.50	205.50
	Low	117.50	148.50	139.50	159.40	171.50	170.50	160.80	163.50	182.00	176.00	173.80	168.50	117.50
	Close	143.50	158.00	159.40	184.00	181.50	172.10	169.40	183.00	186.00	187.60	178.50	195.50	—
1981	High	193.50	205.90	194.50	205.70	231.00	250.50	244.00	242.00	244.50	242.50	232.50	199.50	250.50
	Low	170.50	189.00	182.10	192.00	201.80	228.00	216.50	223.00	225.50	223.40	176.00	186.70	170.50
	Close	192.90	194.00	194.20	203.00	230.00	242.80	237.00	225.50	244.50	230.20	189.50	194.00	—
1982	High	167.00	181.50	215.90	233.50	218.00	195.60	187.00	185.20	187.30	171.00	178.00	180.90	233.50
	Low	151.20	154.90	183.50	211.20	193.00	181.50	169.80	168.70	169.50	158.50	160.00	163.40	151.20
	Close	151.20	181.50	215.90	217.70	194.20	183.40	171.00	182.00	169.50	160.30	170.00	165.50	—
1983	High	162.00	162.00	152.50	150.50	139.50	140.20	133.00	126.30	123.20	123.00	130.00	126.00	162.00
	Low	162.00	152.00	138.00	133.80	128.00	129.00	121.00	119.80	116.40	115.30	118.10	116.50	115.30
	Close	162.00	152.50	145.00	133.80	128.20	130.20	121.00	123.10	120.50	122.70	118.70	122.50	—
1984	High	—	—	174.00	176.00	173.30	165.80	158.30	150.00	141.00	140.00	139.30	157.00	176.00
	Low	—	—	154.40	169.50	154.40	156.60	146.00	140.70	125.10	129.20	134.00	131.50	125.10
	Close	—	—	170.10	170.50	162.50	157.70	148.90	141.00	129.30	138.20	135.50	151.50	—
1985	High	—	—	156.90	158.70	156.90	157.20	154.80	145.40	142.30	134.60	133.80	128.80	158.70
	Low	—	—	152.20	152.90	152.20	153.00	145.20	143.00	132.00	132.30	128.30	122.80	122.80
	Close	—	—	153.00	157.70	152.70	154.10	145.20	143.00	132.60	133.70	128.30	122.80	—
1986	High	—	—	131.70	130.80	128.00	132.50	134.00	126.90	118.40	107.00	102.20		
	Low	—	—	121.50	124.50	121.40	125.00	126.30	119.50	106.60	100.70	91.70		
	Close	—	—	128.30	124.50	125.00	132.10	126.30	119.70	107.50	102.50	100.50		

Source: Winnipeg Commodity Exchange T 576

Rye Under Price Support Through the End of the Month (Cumulative Total from Current Season's Crop) In Thousands of Bushels

Year	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Total
1979–0	5	338	765	1,106	1,313	1,397	1,592	1,653	1,790	1,882	1,900	1,905	1,905
1980–1	—	97	240	297	348	384	396	399	402	406	406	406	
1981–2	36	264	359	398	424	439	448	456	456	456	456	456	
1982–3	7	344	771	1,008	1,096	1,193	1,324	1,369	1,588	1,709	1,711	1,712	
1983–4	83	1,819	2,228	3,533	3,885	4,199	4,577	4,862	5,141	5,228	5,254	5,256	
1984–5	68	3,581	6,661	8,224	8,653	8,911	9,655	9,830	9.996	10,078	10,066	10,070	
1986–6	567	1,769	2.836	3,516	3,728	3,816	3,955	3,996	4,012				

Source: U.S. Department of Agriculture T 578

Salt

Approximately 187 million short tons of salt were mined worldwide in 1985, one percent more than in 1984. No single nation dominates in output of the product, but the major producers include the United States with 21 percent of 1985's total production, the Soviet Union and China with roughly 10 percent each, and West Germany with about 6.5 percent. The world's reserves and resources (proved and unproved reserves) of salt in mines are extremely large and the supply in the oceans is inexhaustible.

Output of salt in the U.S. amounted in 1985 to nearly 40 million short tons, little changed from the year before. Added to that supply were 6.6 million tons that were imported, 40 percent from Canada, 25 percent from Mexico, and 15 percent from the Bahamas. Just half of the salt sold or used in 1985 was in brine, 35 percent was rock salt, and the remainder was either open-pan or solar evaporated.

Apparent consumption in 1985 came to 45 million short tons, virtually the same as in 1984. A trivial 1.2 million tons were exported. With demand and supply near-equilibrium, prices of the various types of salt also changed little from 1984: vacuum and open-pan salt at $90 per ton was down about 3 percent; solar salt at $20 per ton was up less than 2 percent; rock salt at $14 was up 1.6 percent; salt from brine at $4.50 was down 11 percent; and pressed blocks from all sources rose to $65, a gain of 1.8 percent.

According to the forecast of the U.S. Bureau of Mines, the levels of both domestic demand and domestic supply were expected to be virtually the same in 1986 as in 1985. Over the longer term, the Bureau projects that demand for salt, from a base of 1983, will grow at an average annual rate of 2.2 percent through 1990.

World Production of All Salt In Thousands of Short Tons

Year	Brazil	Canada	China	France	W. Germany	India	Italy	Japan	Mexico	Netherlands	Poland	Spain	United Kingdom	United States	USSR	World Total
1978	3,637	7,112	21,528	6,926	13,953	7,385	5,436	1,183	6,212	3,240	4,843	3,714	8,058	42,896	15,983	185,462
1979	3,918	7,585	16,281	8,882	16,634	7,756	6,249	1,189	6,800	4,355	4,882	3,801	8,620	45,820	15,763	191,107
1980	4,231	7,748	19,048	7,831	12,562	8,828	5,806	1,226	7,248	3,818	4,997	3,868	7,887	40,351	16,094	186,156
1981	3,974	7,981	20,194	7,315	13,824	9,845	5,039	1,105	8,767	3,944	4,708	4,072	7,408	38,907	16,755	189,198
1982	4,105	8,752	18,060	7,389	12,102	7,763	5,074	1,065	6,130	3,517	4,251	3,626	8,418	37,894	17,416	179,923
1983[1]	4,615	9,482	17,780	7,662	11,466	7,730	5,007	1,323	6,287	3,444	3,997	3,481	6,957	34,573	17,857	175,563
1984[2]	4,690	11,347	17,600	7,860	12,300	8,306	4,688	1,300	6,600	4,000	4,000	3,400	7,160	39,225	18,200	185,132
1985[2]		11,500	18,000	7,800	12,300	8,300	4,600		6,500		4,000		7,100	39,700	18,500	186,900

[1] Preliminary [2] Estimate *Source: Bureau of Mines*

T 581

Salient Statistics of the Salt Industry in the United States In Thousands of Short Tons

			Sold or Used by Producers														
			Evaporated (Mfg.)				Rock Salt								Exports		
			Bulk														
Year	Net Import Reliance as a % of Apparent Consumption	Avg. Value F.O.B. Mine Vacuum & Open Pan $ Ton	Open & Vacuum Pans	Solar	Pressed Blocks	Total Evaporated	Bulk	Pressed Block	Total Salt Rock	Salt in Brine	Total Salt	Value[3] Million $	Imports for Consumption	Total	To Canada	Apparent Consumption
1978	10	58.86	3,463	2,001	381	5,845	14,630	58	14,688	22,336	42,869	499.3	5,380	776	750	47,473
1979	10	61.64	3,726	2,104	391	6,221	14,827	64	14,891	24,681	45,793	538.4	5,275	697	681	50,371
1980	7	76.44	3,587	2,334	393	6,314	11,742	65	11,806	22,231	40,352	656.2	5,263	831	800	44,784
1981	8	79.68	3,500	2,298	404	6,201	11,809	62	11,871	20,835	38,907	637.6	4,319	1,046	1,011	42,180
1982	11	86.72	3,379	2,478	447	6,305	13,431	72	13,503	18,086	37,894	671.4	5,451	1,001	957	42,344
1983	18	87.39	3,309	1,962	408	5,680	9,867	73	9,941	18,952	34,573	597.1	5,997	517	475	40,053
1984[1]	15	92.62	3,322	2,345	542	6,209	13,276	71	13,348	19,669	39,225	675.1	7,545	820	792	45,950
1985[2]	12	90.00									39,700		6,600	1,200		45,100

[1] Preliminary [2] Estimate [3] Values are f.o.b. mine or refinery & do not include cost of cooperage or containers [4] Or Grainers *Source: Bureau of Mines*

T 582

Salt Sold or Used by Producers in the U.S. by Classes & Consumers or Uses In Thousands of Short Tons

Year	Chlorine, Caustic Soda Ash	Flour Processors	Textile & Dyeing	Meat Packers, Tanners, Etc.[2]	Canning	Baking	U.S. Govt.	Feed Dealers	Feed Mixers	Rubber	Oil	Paper & Pulp	Metals	Water Softener Mfg.[3]	Grocery Stores	Flour Proc.	Highway Use
1978	23,735	91	182	540	254	111	86	1,197	654	96	451	221	346	764	1,057	91	8,487
1979	26,200	95	188	546	280	119	78	1,194	723	99	550	194	356	810	1,140	95	8,742
1980	23,941	92	177	546	287	113	121	1,172	662	95	709	230	272	686	995	92	6,389
1981	22,241	82	180	491	230	109	126	1,147	646	113	820	246	299	700	1,021	82	6,725
1982	18,861	83	165	550	204	109	152	967	699	51	1,035	209	294	718	1,053	83	9,053
1983	19,950	86	171	531	211	114	563	977	628	45	918	274	242	707	987	86	5,041
1984[1]	19,701	79	135	537	242	124	1,131	923	590	41	860	307	309	892	859	79	7,610

[1] Preliminary. [2] Also casing mfg. [3] Also service companies. *Source: Bureau of Mines*

T 583

Sheep & Lambs

According to the USDA, beginning sheep inventory in the 29 major sheep-raising countries in 1986 approximated 690 million head, only .4 percent higher than in 1985. Australia with about 153 million head accounted for 22 percent of the total; the USSR with 139 million claimed roughly 20 percent, and New Zealand with 70 million had another 10 percent. In all three countries the year-over-year change in beginning inventory was tiny.

In Australia sheep meat production during 1985 rose roughly 14 percent, chiefly because drought conditions in the country's eastern section prompted increased slaughtering. Further increases in output, on the order of 12 percent, were expected in 1986. A record lamb crop in New Zealand during 1984 caused meat production there to rise by some 6 percent in 1985; the forecast for 1986 was for a decline in output because of an expected reduction in the lamb crop. Unfavorable weather in the USSR during 1985 caused a reduction in the aggregate herd and further reductions in the inventory were projected, as slaughtering was expected to increase in response to a planned decline in imports of sheep meat.

Prices for lamb were at near-record levels for most of 1985. Liquidation of breeding animals appeared to be over, but the rate of ewe-lamb retention remained low. Barring some dramatic change in demand, therefore, prices for sheep meat were unlikely to change materially during 1986.

Salable receipts of sheep at 36 markets in the U.S. dropped about 26 percent in 1985 to 0.965 million head from 1.298 million in 1984. The monthly average price of choice slaughter lambs (San Angelo) declined to $59.33 per 100 lbs. in December 1985 from the year's peak of $73.32 in May.

World Sheep Numbers in Specified Countries In Millions of Head

Year	India	Argentina	Australia	Brazil	Peru	France	New Zealand	Spain[2]	Turkey	United Kingdom	United States	South Africa	Uruguay	USSR	China[4]	World
1979	41.0	32.8	134.2	17.8	14.0		63.5	13.8	43.9	21.7	12.4	32.5	20.7	142.6		708
1980	40.5	32.0	136.0	18.0	13.5		63.5	16.1	46.0	21.7	12.7	34.9	23.3	143.6		653
1981	40.7	30.0	134.4	18.0	13.5		68.8	16.5	48.6	21.6	12.9	33.8	24.1	141.6	187.0	657
1982	48.0	29.0	138.0	18.0	13.0	13.1	69.9	17.1	49.6	22.2	13.0	33.6	23.2	142.4		671
1983	49.5	33.5	133.2			12.1	70.3	17.5	50.0	22.9	12.1	32.0	23.3	142.2		672
1984	51.1	33.8	139.2			11.9	70.3	17.6	49.0	23.3	11.5	31.3	23.3	145.3		685
1985[1]	52.8	29.3	149.7			11.6	69.7	17.5	48.5	23.9	10.4	30.3	22.8	142.9		688
1986[3]	54.5	28.9	154.0			11.2	67.9	17.6	48.0	24.6	9.9	29.9	24.5	140.3		690

[1] Preliminary. [2] One year old & older. [3] Estimate. [4] Mainland. *Source: Foreign Agricultural Service, U.S.D.A.* T.584

Salient Statistics of Sheep & Lambs in the United States

Year	On Hand Jan. 1	Lambs Saved	In Shipments	Marketings[2]	Slaughter Farm	Slaughter Total[4]	Production	Marketings[2]	Value of Production	Cash Receipts[3]	Value of Home Consumption	Gross Income	Farm Value (1/1) All	Farm Value (1/1) $ per Head
	Mil. Head	Mil. Head	Ths. Head	Ths. Head	Ths. Head	Ths. Head	Mil. Lbs.	Mil. Lbs.	Millions of Dollars	Millions of Dollars	Millions of Dollars	Millions of Dollars	Millions of Dollars	
1979	12.4	8.0	2,143	7,683	172	5,189	704.6	812	406.8	470.4	11.8	482.2	891.0	72.10
1980	12.7	8.3	2,216	8,138	166	5,742	746.3	852	402.7	470.8	11.6	482.4	992.1	78.20
1981	12.9	8.8	1,885	8,613	189	6,197	772.4	884	359.1	416.1	12.3	428.4	903.3	69.80
1982	13.0	8.6	2,115	9,482	195	6,643	785.4	1,033	355.7	445.1	13.0	458.1	739.6	57.00
1983	12.1	8.2	1,838	8,924	171	6,792	767.6		356.7	426.4	10.6	437.0	628.6	51.80
1984	11.5	7.8	1,848	8,799	141	6,900	692.2		375.6	465.5	11.1	476.6	598.9	58.10
1985[1]	10.4	7.4				6,300							637.9	61.10
1986[1]	9.9												669.9	67.40

[1] Preliminary. [2] Excludes interfarm sales. [3] Includes receipts from marketings & from sales of farm slaughter meats. [4] Includes all commercial & farm. *Source: Crop Reporting Board, U.S.D.A.* T.585

Sheep and Lambs on Farms in the United States, January 1 Thousands of Head

Year	All Sheep and Lambs[2] Minnesota	California	Colorado	Idaho	Missouri	Montana	New Mexico	Ohio	South Dakota	Texas	Utah	Wyoming	Iowa	Total[2]	Total[1] Stock
1979	255	1,150	795	466	126	475	604	350	740	2,415	486	1,080	380	12,365	10,786
1980	264	1,175	870	468	123	574	660	320	783	2,400	625	1,050	408	12,687	11,065
1981	295	1,205	810	512	138	595	650	310	780	2,360	650	1,110	437	12,936	11,287
1982	335	1,210	710	498	133	616	615	313	750	2,400	636	1,130	485	12,966	11,402
1983	300	1,115	750	429	126	560	610	295	680	2,225	590	1,060	457	12,140	10,385
1984	255	1,115	690	383	128	564	589	265	740	1,970	568	1,090	425	11,487	9,769
1985[3]	255	1,065	675	313	123	515	538	265	639	1,810	515	860	360	10,443	8,847
1986[3]	213	1,065	600	320	101	423	525	275	540	1,810	484	819	350	9,932	8,440

[1] Stock sheep & lambs; does not include sheep & lambs on feed for market. [2] Includes sheep & lambs on feed for market and stock sheep & lambs. [3] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.586

Average Wholesale Price of Lambs at Omaha In Dollars Per 100 Pounds

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
1979	73.75	71.25	61.25	70.50	70.75	65.00	61.52	60.62	67.00	64.50	65.00	67.75	66.58
1980	64.60	62.71	64.64	56.12	67.62	65.78	66.99	66.98	64.88	61.77	55.67	53.13	59.81
1981	50.00	53.50	55.25	59.25	65.00	66.42	57.33	54.10	48.53	49.86	45.27	45.10	52.23
1982	48.92	51.58	58.52	58.67	62.56	60.28	56.16	50.71	48.93	46.92	45.46	47.62	53.03
1983	53.50	58.50	59.75	58.75	59.00	53.00	51.12	49.25	48.50	51.75	56.00	57.75	54.74
1984	60.50	58.75	58.75	60.50	62.25	61.75	61.50	62.76	63.58	63.35	62.98	60.08	61.39
1985[1]		66.92	67.75	69.50	74.25	72.56	71.98	71.42	68.94	63.32	62.50	60.62	68.41
1986[1]	61.75	68.50	67.00										

[1] Preliminary. *Source: Economic Research Service, U.S.D.A.*

T 587

Federally Inspected Slaughter of Sheep & Lambs in the United States In Thousands of Head

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1979	391	354	431	425	421	371	384	415	410	455	386	389	4,833
1980	448	419	470	466	454	400	420	427	466	510	415	468	5,363
1981	488	426	488	512	426	440	439	467	546	558	476	522	5,789
1982	510	490	570	1,493			1,577			1,634			6,273
1983	509	457	616	509	508	508	497	585	595	580	510	536	6,412
1984	540	548	586	592	558	500	511	561	528	588	524	514	6,549
1985[1]	544	473	564	512	494	423	485	496	480	554	460	490	5,976
1986[1]	507	441											

[1] Preliminary. *Source: Economic Research Service, U.S.D.A.*

T 588

Cold Storage Holdings of Lamb and Mutton, on 1st of Month In Thousands of Pounds

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1979	11,716	10,965	10,827	12,022	12,072	12,897	11,483	11,943	11,763	10,951	11,697	11,071
1980	10,751	10,302	9,464	7,945	8,475	8,995	10,229	10,263	8,880	8,336	8,165	9,779
1981	9,142	8,997	7,843	7,823	10,196	10,403	12,297	12,564	13,694	13,311	12,676	11,362
1982	10,540	9,569	8,449	8,783	—	—	8,266	—	—	8,571	—	—
1983	8,653	7,682	7,673	8,218	8,331	8,839	8,691	7,717	8,815	8,622	9,092	10,270
1984	10,701	8,312	7,542	8,057	9,123	8,839	8,678	8,404	8,026	8,889	8,403	7,890
1985	7,066	7,339	6,840	6,547	7,644	8,068	8,931	9,193	9,541	9,237	10,033	12,525
1986[1]	12,766	11,615	13,813	11,754								

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.*

T 589

Average Price Received by Farmers for Sheep in the U.S. In Dollars per 100 Pounds

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average[1]
1979	26.20	26.30	28.10	31.00	27.90	24.00	25.10	24.30	26.50	27.20	26.30	25.00	26.30
1980	27.40	30.50	26.90	21.90	21.70	20.30	17.80	19.40	21.40	18.90	19.90	20.80	21.30
1981	27.40	29.00	26.10	23.40	19.50	20.30	23.00	20.40	20.30	19.70	19.10	19.20	21.20
1982	25.10	21.30	27.20	22.20	21.00	22.00	21.00	18.60	16.50	15.20	15.30	16.80	19.50
1983	21.30	21.90	20.80	17.40	15.20	14.50	16.20	15.50	12.80	13.80	15.10	17.00	15.70
1984	18.20	19.80	18.70	16.30	13.00	13.80	16.80	17.30	15.90	15.20	18.10	24.30	16.40
1985[2]	26.50	24.10	26.20	24.70	22.90	22.00	27.20	26.10	25.30	21.50	23.60	28.90	23.90
1986[2]	29.90	26.10	23.00	23.10									

[1] Weighted average by quantities sold. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.*

T 590

Average Price Received by Farmers for Lambs in the U.S. In Dollars per 100 Pounds

Year	Jan	Feb	Mar	Apr.	May	June	July	Aug	Sept	Oct	Nov	Dec	Average[1]
1979	74.10	69.90	64.90	70.40	69.70	66.40	64.00	61.40	66.70	65.70	64.90	66.90	66.70
1980	66.40	64.40	67.10	59.20	60.30	64.60	65.30	65.80	66.70	64.30	59.90	58.40	63.60
1981	54.10	55.40	56.50	58.80	63.10	65.00	59.50	56.20	50.40	50.60	47.40	47.50	54.90
1982	50.40	53.30	60.30	61.50	63.50	57.80	56.30	52.90	50.90	49.10	47.70	50.90	53.10
1983	55.50	60.50	63.20	61.50	59.60	54.20	49.80	48.30	47.50	50.90	55.80	58.90	53.90
1984	60.00	59.20	58.20	60.60	59.50	57.50	58.60	61.00	61.80	62.40	63.30	61.90	60.10
1985[2]	63.40	64.70	68.00	68.40	72.40	69.70	70.80	70.80	70.20	67.80	66.00	62.50	67.70
1986[2]	63.90	67.00	64.90	67.00									

[1] Weighted average by quantities sold. [2] Preliminary. *Source: Crop Reporting Board, U.S.D.A.*

T 591

Silk

Salient Statistics of Silk in the United States

Year	World Production (Raw) Million Lbs.	U.S. Unmanufactured[1] Imports[2] (By Country of Origin) — Thousands of Pounds: Total Imports	Brazil	United Kingdom	Hong Kong	India	Italy	Japan	Switzerland	China	Korea	U.S. Silk Imports[2] — Mil. Lbs.: Raw	Waste	Mill Consumption: Total Mil Pounds	Per Capita Pounds
1971	90	1,702	38	—	—	—	345	1,154	—	—	74	.3	1.4	1.7	.10
1972	93	2,139	76	—	—	—	227	1,339	—	—	106	.6	1.6	2.1	—
1973	95	3,342	79	13	—	—	472	2,197	—	—	15	.6	2.8	3.3	—
1974	99	2,593	145	0	—	—	397	1,476	—	—	107	.4	2.2	2.6	—
1975	104	968	176	1	—	—	0	386	—	353	0	.6	.4	1.0	—
1976	106	2,653	247	1	—	—	98	1,727	—	457	—	.7	1.9	2.8	—
1977	108	1,621	106	0	—	—	0	1,230	—	268	0	.4	1.2	1.6	—
1978	112	1,989	182	0	—	107	1	918	—	607	119	.7	1.3	2.0	—
1979	121	1,565	193	—	—	—	—	602	—	747	—	.8	.8	1.5	—
1980	123	1,053	139	—	5	—	—	108	—	713	71	.5	.6	1.5	—
1981	126	1,983	176	—	29	—	223	175	—	1,280	0	.8	1.2	2.0	—
1982[3]	121	4,219	224	—	94	—	223	256	—	3,311	0	1.4	2.8	2.0	—
1983[4]	121													2.0	—
1984[4]	121													3.0	
1985[4]														3.0	

[1] In skeins, wild or tussah, cocoons, and waste. [2] Imports for consumption. [3] Preliminary. [4] Estimate. Sources: *Department of Commerce*; *Textile Organon*. T 592

Raw Silk Deliveries in the U.S. In Bales (132 Lbs.—60 Kilos)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1971	247	205	187	277	228	129	192	241	247	355	165	253	2,726
1972	233	184	308	198	141	195	182	445	529	209	229	313	3,166
1973[1]	556	355	450	499	393	119	577	214	71	93	105	246	3,678
1974	124	305	233	277	175	288	269	139	97	302	151	96	2,456
1975	190	188	410	393	394	219	380	219	505	585	225	641	4,349
1976	925	469	689	362	251	579	337	358	422	268	222	159	5,041
1977	352	239	242	212	254	259	322	311	370	424	322	433	3,740
1978	321	394	424	382	397	299	316	341	401	280	468	214	4,237
1979	501	302	687	353	471	418	407	756	492	490	368	518	5,763
1980	312	644	422	507	366	285	257	332	342	365	265	323	4,420
1981	471	380	471	446	322	529	300	259	348	414	487	611	5,038
1982	450	489	662	398	234	369	495	403	364	226	514	317	4,921
1983	280	506	390	462	717	377	264	474	534	529	587	324	5,444
1984	715	537	455	315	636	655	229	672	532	562	391	538	6,237
1985	462	689	344	480	415								

[1] Includes re-exports from 1973. *Source: International Silk Association.* T 593

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Silver

Production of silver worldwide during 1985, according to a preliminary estimate of the Bureau of Mines, was 388 million troy ounces, down about 3 percent from 1984. The largest single producing country was Mexico, whose output constituted one-sixth of the total. Peru generated one-seventh of global output, followed by the U.S.S.R. with 12 percent, the U.S. with 11 percent, and Canada with just under 10 percent. The world's reserve base was estimated at 1985's end to be 10.8 billion troy ounces, with 17 percent located in the U.S., 15 percent in the Soviet Union, and 13 percent each in Mexico and Canada. Because two-thirds of the world's silver resources are associated with deposits of copper, lead and zinc, significant additional increases in reserves are expected in the years ahead, as new sources of those base metals are discovered.

In the U.S. 38.7 million troy ounces of silver were mined in 1985, roughly two-thirds of the output from just ten of the approximately 150 operating mines in the country. Refinery production totaled about 116.4 million ounces, 42.6 million from ores and concentrates and 73.7 million from scrap. Although refinement of scrap was 7 percent larger by volume than in 1984, output from concentrates and ore was lower by 12 percent. Imports for consumption, i.e., exclusive of coinage, rose sharply on a year-over-year basis, jumping by about one-third. Consequently, total supply (production plus imports) of 261 million ounces exceeded aggregate demand (consumption plus exports) of 144 million ounces by a considerable margin. COMEX depository stocks of silver at the year end were 155.3 million ounces vs. 118.5 million at the end of 1984, accounting in large part for the drop in average daily price during 1985 to $6.20 per ounce from 1984's $8.14 per ounce. Other factors impinging adversely upon silver's market price were fluctuations in the dollar's value in terms of other currencies, falling oil prices, difficulties throughout the nation's banking system, and sales of silver by private investors, notably the Texan brothers Hunt.

The outlook for 1986 was for more of the same. Because many mines were expected to be closed on a temporary basis or to operate well below capacity during the year, output as a whole in the U.S. was projected at no more than the scaled-down rate of 1985. However, by late April, 1986, two of the larger U.S. silver mines, the Sunshine Mine and Lucky Friday (which together produced an estimated 9–10 million troy ounces of silver in 1985), were closed because of low prices and/or labor disputes. U.S. Bureau of Mines data showed that U.S. Mine production of silver in the first two months of 1986 totaled 6.15 million troy ounces, 2.7 percent below production in the same period of 1985. Hence, U.S. mine production in 1986 could prove to be considerably lower than in 1985, if prices remain depressed and labor disputes continue unresolved.

Futures Markets

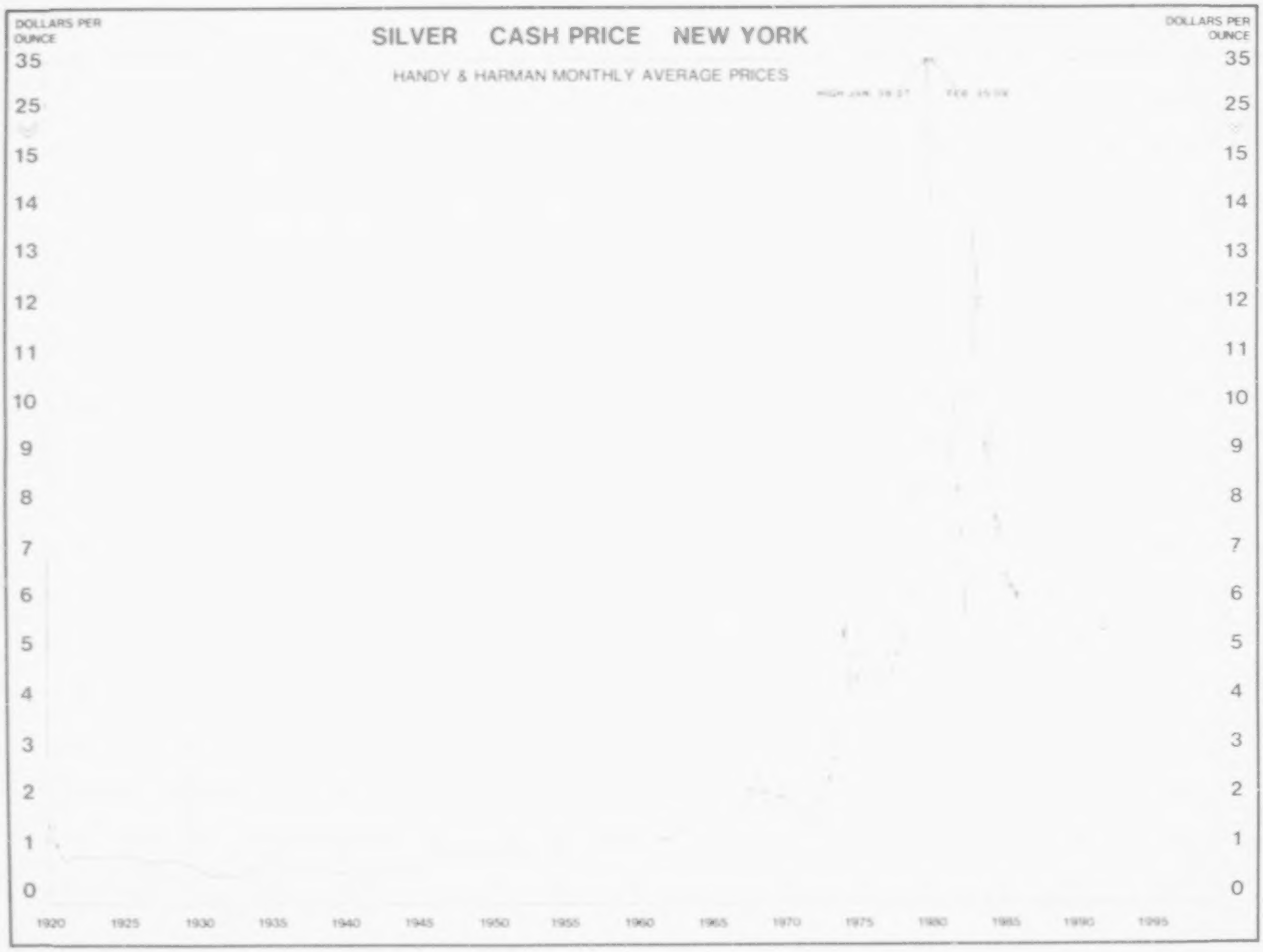
Silver futures are traded on New York's Commodity Exchange (COMEX), Chicago's Board of Trade (CBOT) and the MidAmerica Commodity Exchange, the London Metals Exchange (LME), and the Winnipeg Commodity Exchange (WCE).

World Mine Production of Silver, by Selected Countries In Millions of Fine Ounces (Troy Ounces)

Year	Argentina	Australia	Bolivia[1]	Canada	W. Germany	Honduras	Japan	Mexico	Morocco	Peru	Poland	United States	USSR[2]	Yugoslavia	Zaire (Congo)	World Total[2]
1976	2.25	25.03	5.34	41.20	1.03	3.18	9.30	42.64	2.05	35.58	17.8	34.33	44.0	4.63	2.47	316.4
1977	2.45	27.53	5.81	42.24	1.06	2.82	9.60	47.03	2.82	39.73	20.7	38.17	45.0	4.68	2.73	331.3
1978	2.16	26.12	6.29	40.73	.80	2.79	9.66	50.78	3.13	37.02	21.9	39.39	46.0	5.13	4.39	345.0
1979	2.21	26.76	5.74	36.87	1.04	2.43	8.68	52.17	3.28	39.25	22.6	37.90	46.0	5.21	3.89	348.1
1980	2.36	24.65	6.10	33.34	1.06	1.77	8.60	50.05	3.15	44.42	24.63	32.33	46.0	4.79	2.73	342.8
1981	2.52	23.91	6.39	36.30	1.13	1.82	9.01	52.92	2.12	46.94	20.58	40.68	46.5	4.44	2.58	359.6
1982	2.68	29.16	5.47	42.25	1.28	2.10	9.84	59.18	2.64	53.48	21.12	40.25	46.9	3.34	1.75	381.5
1983[3]	2.50	33.85	6.03	35.56	1.17	2.59	9.88	63.61	2.85	55.88	21.80	43.42	47.2	3.99	2.00	392.3
1984[2]	2.50	32.00	4.92	37.57	1.25	2.65	10.40	67.80	2.44	56.53	22.00	44.44	47.4	4.05	2.00	398.6
1985[2]				38.0				63.0		57.0		38.71	47.0			394.0

[1] Exports. [2] Estimate. [3] Preliminary. *Source: Bureau of Mines*

T.594



Average Price of Silver in New York (Handy & Harman) In Cents per Troy Ounce (.999 Fine)

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
1972	147.3	150.4	153.6	157.2	158.3	156.9	173.6	184.6	177.7	181.1	183.3	197.6	168.5
1973	201.7	223.6	230.9	220.7	240.1	262.1	270.6	263.7	267.5	288.6	286.0	313.7	256.0
1974	363.7	535.9	532.6	503.6	543.2	489.6	441.6	443.1	404.9	483.0	469.4	439.1	470.8
1975	419.3	437.0	434.5	420.9	453.8	448.9	470.5	492.5	451.6	432.9	433.2	408.5	442.0
1976	406.3	408.6	418.9	435.1	448.9	481.2	478.0	423.7	429.5	422.5	437.3	434.7	435.4
1977	440.9	452.7	484.2	477.7	469.2	444.3	449.8	444.4	453.9	476.3	482.8	470.6	462.3
1978	493.4	493.6	526.8	511.6	512.0	531.6	533.1	549.5	557.5	591.8	586.5	593.0	540.0
1979	625.5	741.7	745.4	749.3	836.6	853.8	913.5	933.4	1,395.9	1,678.1	1,655.3	2,179.3	1,109.0
1980	3,827.2	3,508.5	2,413.3	1,384.1	1,253.3	1,574.8	1,606.0	1,589.7	2,014.4	2,018.1	1,864.8	1,639.3	2,063.3
1981	1,475.2	1,306.5	1,236.9	1,091.7	1,084.8	1,000.1	863.1	892.3	1,003.6	925.1	854.7	843.2	1,048.1
1982	803.1	826.8	721.3	731.1	667.4	557.8	649.7	713.6	872.5	948.8	991.8	1,058.6	795.0
1983	1,239.6	1,396.4	1,061.9	1,169.4	1,295.3	1,174.9	1,208.8	1,209.6	1,191.5	984.1	883.7	912.1	1,143.9
1984	818.2	912.7	965.1	922.1	897.2	874.4	741.6	761.3	726.3	731.7	748.9	669.4	814.1
1985	609.8	607.0	601.4	645.8	628.0	617.0	610.4	624.7	605.4	619.0	613.3	588.8	619.2
1986	605.3	587.4											

Source: Handy & Harman

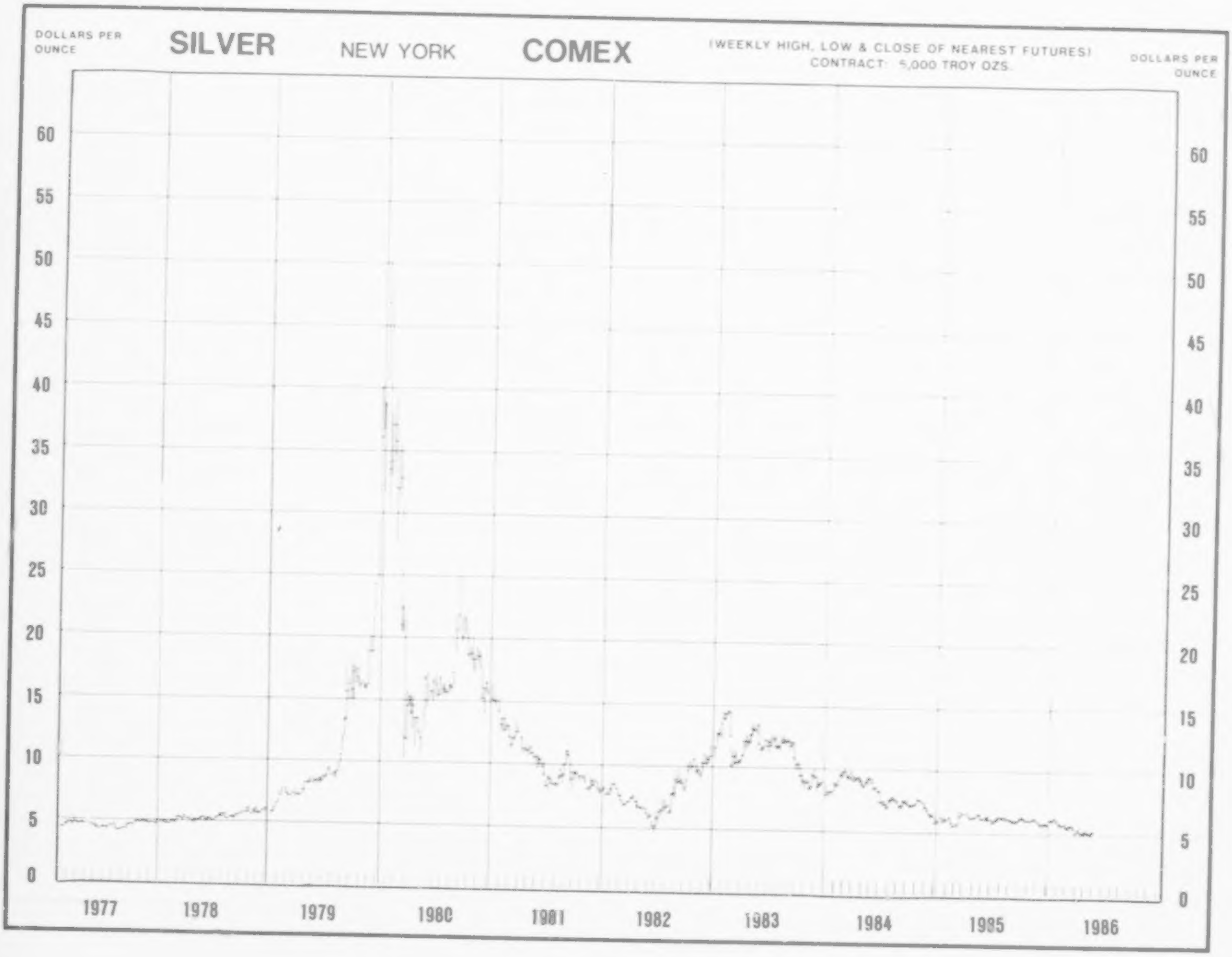
T.595

World[2] Silver Consumption In Millions of Troy Ounces

	Industrial Uses									Coinage								
Year	Canada	France	W. Germany	India	Italy	Japan	Un. Kingdom	United States	World Total	Canada	France	W. Germany	Austria	Mexico	United States	World Total	World Total
1972	7.4	16.5	60.0	13.0	32.0	54.3	27.0	151.7	388.9	.1	.3	22.6	5.8		2.3	38.4	427.3
1973	8.6	14.3	64.7	13.0	41.5	69.0	31.0	195.9	477.8	1.4	.1	9.5	6.6		.9	29.2	507.0
1974	9.6	15.5	59.9	15.0	38.6	46.5	25.0	177.0	409.4	8.9	.1	8.8	5.6		1.0	27.9	436.9
1975	10.6	21.2	38.9	13.0	28.9	46.4	28.0	157.7	376.8	10.4	5.2	4.3	13.4	—	2.7	38.8	415.6
1976	9.5	19.0	50.8	18.0	32.1	60.7	28.0	170.5	437.5	8.4	6.7	2.9	6.9	—	1.3	29.7	467.2
1977	8.8	20.6	59.5	17.6	33.8	63.2	32.2	153.6	433.6	.3	6.9	2.6	3.0	4.2	.4	23.4	457.0
1978	9.0	22.2	47.2	20.0	41.8	64.8	29.0	160.2	442.6	.3	11.1	3.6	4.5	6.3	.1	36.3	478.9
1979	8.1	21.5	46.1	19.0	31.1	66.4	26.5	157.2	434.2	.3	7.7	3.7	5.0	5.0	.1	27.8	462.0
1980	8.7	20.2	29.1	19.0	21.8	61.7	20.5	124.7	354.5	.2	—	—	4.3	6.1	.1	13.7	368.2
1981	9.4	20.6	33.8	19.0	12.9	59.8	18.5	116.6	344.0	.2	—	—	3.0	—	—	9.0	353.0
1982	9.0	18.6	35.9	22.5	9.6	63.2	20.0	118.8	351.8	.3	—	—	4.0	—	2.5	12.8	364.6
1983	8.9	18.6	30.3	21.8	9.0	71.5	18.0	116.3	349.6	.4	—	—	2.0	—	19.2	19.6	369.2
1984	9.0	17.0	30.1	25.7	11.6	78.7	19.0	114.8	362.9	.3	—	—	—	2.0	3.4	8.7	371.6
1985[1]	9.1	18.0	31.7	25.7	14.5	77.2	19.0	118.6	373.9	.3			—	3.0	.4	8.7	382.6
1986																	

[1] Preliminary [2] Non-communist areas only Source: *Handy & Harman*

1,597



SILVER

U.S. Mine Production of Recoverable Silver In Thousands of Troy Ounces

Year	Arizona	California	Colorado	Idaho	Oregon	Missouri	Montana	Nevada	New Mexico	New York	Tennessee	So Dakota	Utah	Alaska	Total
1977	6,828	58	4,663	15,292		2,363	3,367	738	918	56	60	69	3,283		38,166
1978	6,638	58	4,217	18,379		2,056	2,918	804	895	21	N.A.	N.A.	2,885		39,385
1979	7,479	64	2,809	17,144	2	2,201	3,302	560	N.A.	11	N.A.	58	2,454	N.A.	37,896
1980	6,268	49	2,987	13,695	1	2,357	2,024	940	N.A.	21	N.A.	51	2,203	8	32,329
1981	8,055	53	3,009	16,546	7	1,837	2,989	3,039	1,632	29	N.A.	56	2,883	2	40,683
1982	6,309	34	1,934	14,830	—	2,241	6,169	3,142	805	27	N.A.	26	4,343	2	40,248
1983	4,492	27	2,146	17,684	1	2,021	5,708	5,164	N.A.	33	N.A.	62	4,567	4	43,415
1984[1]	4,093	N.A.	2,200	18,869	N.A.	1,401	5,653	6,477	N.A.	N.A.	N.A.	50	N.A.	N.A.	44,440
1985[2]	3,667		532	19,066		1,746	4,115	5,321				56			38,714

[1] Preliminary [2] Forecast *Source: Bureau of Mines*

T.599

U.S. Consumption of Silver, by End Use In Thousands of Troy Ounces

Year	Bearings	Brazing Alloys & Solders	Catalysts	Dental & Medical	Electroplated Ware	Electrical & Electronic Products		Jewelry	Mirrors	Photographic Materials	Sterling Ware	Coins, Medallions[2]	Total Net Industrial Consumption	Coinage	Total Consumption
						Batteries	Contacts & Conductors								
1977	523	12,362	8,883	2,232	6,844	5,783	31,316	8,059	2,131	53,679	16,690	4,252	153,613	91	153,704
1978	373	10,987	8,197	2,033	7,274	6,029	30,756	6,766	1,862	64,299	17,908	2,727	160,165	45	160,210
1979	332	10,912	5,637	2,295	8,065	4,583	33,506	5,358	1,850	65,978	13,088	4,676	157,258	168	157,426
1980	649	8,508	3,035	2,212	4,350	5,976	27,796	5,893	672	49,825	9,082	4,693	124,694	72	124,766
1981	297	7,718	3,830	1,709	3,904	3,803	26,411	5,368	581	51,025	4,407	2,622	116,670	179	116,849
1982	228	7,384	2,418	1,688	3,254	4,167	27,730	6,260	970	51,769	6,579	1,832	118,840	1,846	120,686
1983	170	5,837	2,424	1,532	3,154	2,800	26,298	6,885	970	51,827	7,022	2,979	116,464	2,128	118,592
1984[1]	260	5,889	2,448	1,569	3,542	2,671	25,633	5,773	970	55,322	3,638	2,564	114,841	2,665	117,506
1985[3]	183	5,614	2,455	1,493	3,678	2,470	27,511	5,765	970	57,890	3,777	2,514	118,878	355	119,233

[1] Preliminary [2] Includes commemorative objects [3] Estimate *Source: Bureau of Mines*

T.598

Commodity Exchange, Inc. (COMEX) Warehouse Stocks of Silver In Millions of Ounces

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1977	54.8	56.5	57.2	63.3	65.6	67.0	69.4	70.6	65.2	64.9	60.2	64.5
1978	68.7	70.0	72.3	74.2	73.4	70.8	72.8	73.6	72.4	66.7	64.3	63.0
1979	58.2	52.0	51.8	49.2	50.3	55.5	54.1	48.9	47.3	51.8	60.3	70.2
1980	74.8	76.0	77.8	83.1	84.2	82.3	82.0	81.7	82.6	82.2	87.1	86.1
1981	86.9	86.8	85.4	84.6	85.7	85.1	86.6	85.4	78.8	78.1	76.0	77.3
1982	77.6	76.3	78.5	77.1	79.9	78.0	72.4	66.2	60.0	60.7	59.2	80.6
1983	91.2	90.9	106.4	96.8	91.3	69.8	91.1	93.7	113.6	129.3	129.4	129.6
1984	127.4	123.7	116.8	117.2	115.3	114.3	121.8	120.3	116.2	115.0	113.4	115.4
1985	118.9	121.5	122.3	106.6	106.0	104.2	133.7	140.8	141.0	143.6	149.2	153.7
1986	155.2	142.3	145.9									

Source: Commodity Exchange, Inc.—New York

T.600

United States Production[1] of Refined Silver from All Sources In Thousands of Troy Ounces

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1977	13,196	10,114	13,173	13,335	13,260	14,100	5,781	7,840	10,412	13,643	13,002	14,966	143,125
1978	10,694	12,699	12,503	10,871	12,196	12,000	10,186	12,214	10,727	12,666	11,526	12,721	141,003
1979	10,592	10,888	13,070	11,451	11,938	11,600	12,433	9,837	9,118	12,476	12,221	17,008	155,723
1980	18,088	17,548	17,673	16,941	10,400	14,800	6,676	11,583	10,785	10,603	10,578	14,553	166,326
1981	12,889	12,000	11,352	11,889	10,402	11,500	10,433	10,114	10,533	9,954	8,105	11,589	130,783
1982	9,043	8,407	10,300	8,856	9,095	8,840	7,781	8,518	7,872	8,307	9,607	11,655	108,252
1983	9,121	8,533	9,063	9,653	7,663	10,210	8,579	8,342	7,886	8,738	9,880	12,058	112,200
1984	7,094	8,414	8,446	9,827	10,423	8,921	8,879	11,226	8,971	8,386	10,200	13,920	116,400
1985	8,414	7,930	8,645	9,238	9,344	9,850	8,578	9,885	8,191	8,429	8,987	11,467	109,000

[1] Output of commercial bars .999 fine, including U.S. Mint purchases of crude. Production is from both foreign and domestic silver. *Sources: American Bureau of Metal Statistics; The Silver Institute, Inc.*

T.603

Highest and Lowest Prices of December Silver Futures at New York (Comex) In Dollars per Ounce

Year of Delivery		Yr. Prior to Delivery			Delivery Year												Life of Delivery Range
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	
1978	High	5.292	5.377	5.166	5.425	5.43	5.877	5.752	5.668	5.718	5.823	5.863	5.795	6.40	6.11	6.02	6.400
	Low	5.022	5.01	4.95	5.16	5.135	5.25	5.10	5.174	5.392	5.325	5.43	5.506	5.71	5.645	5.80	4.715
	Close	5.251	5.134	5.143	5.33	5.29	5.775	5.219	5.621	5.40	5.817	5.597	5.715	6.215	6.00	5.986	—
1979	High	6.94	6.558	6.538	7.16	8.405	8.23	8.363	9.36	9.235	9.975	10.935	16.90	18.13	19.40	25.75	25.750
	Low	6.296	6.205	6.26	6.36	6.99	7.453	7.625	8.31	8.64	8.842	8.985	11.15	15.91	15.85	18.65	5.585
	Close	6.758	6.465	6.514	7.089	8.14	7.839	8.363	9.091	8.96	9.293	10.86	16.80	16.79	18.82	25.50	—
1980	High	19.55	20.528	30.91	44.37	42.15	39.78	20.27	14.75	20.20	20.09	17.14	24.18	22.28	20.32	19.02	44.370
	Low	16.79	17.54	20.705	31.91	35.20	21.27	13.86	11.45	16.975	17.57	15.90	16.67	18.54	17.58	13.37	7.564
	Close	18.395	20.528	30.91	37.645	38.64	21.27	13.86	14.53	19.24	17.84	16.84	21.25	19.10	18.59	16.61	—
1981	High	26.00	23.525	22.615	18.80	15.90	14.67	13.58	12.70	11.84	9.78	10.26	11.80	10.05	9.41	9.05	43.750
	Low	22.12	20.875	17.19	14.60	13.75	12.80	11.90	11.21	9.08	8.77	8.73	8.49	9.00	7.87	7.98	7.970
	Close	22.54	22.015	18.19	15.165	13.72	13.135	12.205	11.685	9.18	9.032	9.72	9.38	9.25	8.205	7.985	—
1982	High	11.45	10.70	10.15	9.49	9.86	8.82	8.39	7.54	6.68	7.72	8.66	9.975	10.07	11.01	11.18	17.975
	Low	10.509	9.11	9.04	8.73	8.65	7.60	7.35	6.67	5.11	5.80	6.32	7.70	8.02	8.95	10.02	5.11
	Close	10.68	9.28	9.185	9.182	8.622	7.87	7.47	6.675	6.406	6.965	8.04	8.24	10.09	10.09	11.14	—
1983	High	11.55	11.90	12.35	15.238	16.07	12.18	13.38	14.42	13.32	13.11	13.25	12.74	10.78	9.86	10.04	16.07
	Low	9.00	9.90	11.07	11.84	12.666	10.71	11.44	12.68	11.513	11.72	11.75	11.01	8.63	8.32	8.44	6.146
	Close	10.94	11.09	11.91	15.238	12.666	11.382	12.715	13.64	12.055	12.225	12.41	11.07	8.63	9.62	8.81	—
1984	High	11.83	10.86	11.10	9.78	10.73	10.97	10.49	9.97	10.13	8.739	8.39	7.90	7.865	7.90	17.165	17.55
	Low	9.596	9.22	9.40	8.47	9.29	9.93	9.465	9.11	8.70	7.06	7.20	7.12	7.12	6.95	6.245	6.245
	Close	9.596	10.649	9.867	9.329	10.42	10.541	9.555	9.835	8.817	7.274	7.66	7.62	7.28	7.019	6.573	—
1985	High	8.81	8.745	7.85	6.93	6.85	7.25	7.20	7.015	6.74	6.615	6.63	6.32	6.53	6.318	6.12	12.30
	Low	8.00	7.70	6.80	6.30	5.93	5.90	6.44	6.18	6.20	5.99	6.23	5.96	6.075	6.04	5.70	5.70
	Close	8.084	7.736	6.86	6.832	6.059	7.106	6.48	6.392	6.309	6.46	6.37	6.095	6.125	6.077	5.865	—
1986	High	7.12	6.84	6.65	6.83	6.45											
	Low	6.65	6.54	6.13	6.07	5.93											
	Close	6.659	6.609	6.263	6.443	5.968											

Source: Commodity Exchange Inc. of N.Y. (COMEX)

T.596

Month-End Total Open Interest of Silver Futures at New York (COMEX) & Chicago In Thous. of Contracts

Year	At New York (COMEX)												At Chicago (1,000 oz.[1])			
	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1	Jan. 1	Apr. 1	July 1	Oct. 1
1978	287.8	245.4	242.4	226.0	217.8	208.6	196.2	212.6	214.4	239.1	277.5	304.8	275.9	240.2	230.0	235.4
1979	299.5	242.9	218.7	203.5	185.7	170.0	153.3	154.5	156.2	167.3	144.3	133.4	252.8	180.5	166.6	156.7
1980	123.6	77.7	63.4	48.5	27.1	23.8	22.9	25.1	24.5	29.8	35.0	36.0	88.9	23.6	22.9	24.0
1981	32.0	27.6	24.3	25.7	26.1	28.8	29.4	31.0	31.0	29.9	32.3	27.5	28.0	21.2	29.8	16.3
1982	27.6	27.5	25.0	29.3	28.3	27.0	27.3	29.0	27.2	24.6	30.0	31.0	7.1	8.6	7.0	12.5
1983	33.9	44.6	54.3	45.9	50.1	57.1	42.8	42.7	48.1	53.0	51.7	55.4	19.4	32.6	35.8	35.1
1984	59.9	62.0	64.3	71.6	64.5	66.5	58.2	64.8	61.3	64.1	73.2	76.2	32.0	37.8	42.7	35.0
1985	81.5	84.3	76.1	74.3	70.1	77.3	73.5	72.5	70.1	76.1	86.6	85.3	27.1	23.2	25.1	21.4
1986	86.7	82.2	79.5													

[1] 1,000 oz. Contract from Jan. 1982. Prior data is for 5,000 oz. Contract. *Source: Commodity Exchange of N.Y. (COMEX); Chicago Board of Trade*

T.601

Volume of Trading in Silver Futures at New York (COMEX) In Thousands of Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1978	330.0	270.7	391.0	287.5	244.9	247.2	254.1	316.2	192.0	469.0	438.0	381.4	3,822
1979	460.0	388.3	304.6	367.3	545.3	480.5	383.9	404.1	283.1	191.7	178.6	111.1	4,081
1980	167.7	76.2	143.5	94.0	46.6	63.3	45.6	41.8	100.9	92.9	97.1	90.6	1,059
1981	70.7	71.0	74.9	72.6	58.0	97.4	77.4	116.0	171.9	121.4	136.6	172.8	1,241
1982	112.8	193.9	211.5	192.9	99.7	217.4	263.1	317.2	258.0	288.9	350.6	372.8	2,869
1983	502.7	601.4	446.6	452.9	516.1	623.7	454.3	656.5	492.0	569.0	596.9	512.7	6,433
1984	570.8	698.8	695.7	629.9	626.7	587.4	554.7	601.5	431.3	449.2	534.2	362.3	6,698
1985	531.8	488.0	518.4	449.8	424.8	377.9	377.7	388.5	267.7	314.0	332.8	349.9	4,821
1986	394.0	368.9											

Source: Commodity Exchange of N.Y. (COMEX)

T.602

Soybean Meal

Soybean meal is by far the most important protein meal produced worldwide, and the U.S. is the world's largest producer. Yet, Brazil accounts for a larger share of world exports of soybean meal than the U.S.

In recent years, soybean meal accounted for 60 to 62 percent of global output of protein meals. However, its share dropped to about 57 percent in the 1984/85 season and was expected to account for about the same percentage in the 1985/86 season. (Protein meal includes soybean, cottonseed, peanut or groundnut, sunflower, rapeseed, linseed, copra, palm kernel, and fish.) Increased cottonseed, rapeseed and sunflowerseed meal production have reduced soybean meal's share of global production.

World meal use increased by about 9 percent in 1984/85 from the 1983/84 level, reflecting increased world livestock and poultry numbers in 1985. A further gain of one percent was expected for 1985/86. Soybean meal was expected to account for close to 58 percent of the total, unchanged from the previous season. In the EC, the soybean meal/feed wheat/price ratio in February dropped 5 percent to 8 percent below a year earlier, providing latitude for expanding meal feeding rates. With relatively unfavorable EC crushing margins, increases in demand were expected to be filled largely by imports of soybean meal.

Global exports of protein meals in 1985/86 were forecast by the USDA in March 1986 to be marginally higher than in 1984/85, with soybean meal expected to account for 69 percent of the total, about the same as in the previous season. However, U.S. exports were expected to increase while those from Brazil were expected to decline as a result of drought-reduced 1986 production in that country, the world's largest exporter. Exports by Brazil were expected to drop to 7.8 million tonnes from 8.4 million in 1984/85.

In the U.S., 1985/86 supplies of soybean meal were expected to increase. Beginning stocks on October 1, 1985 were 387 thousand short tons, up from 255 thousand a year earlier and production was estimated to increase by 2.5 percent from 24.53 million tons in 1984/85. Domestic use was tagged at 19.5 million tons, about the same as a year earlier, but domestic use in the first four months of the 1985/86 season was one percent lower than a year earlier. Meal became more expensive relative to grain, but was below the long-term average of 2:1. Hogs consume about one-third of the soybean meal fed in the U.S., and December 1, 1985 hog numbers were at their lowest level in about 20 years. Broilers are another major user of soybean meal and broiler numbers early in 1986 were above year-earlier levels. U.S. exports of soybean meal were expected by the USDA to increase by close to 14 percent in 1985/86, helped by reduced foreign competition, and improved foreign feeding rates due to the lower U.S. dollar. In February 1986, for example, the soybean meal price in Rotterdam, in terms of ECU's was 11 percent lower than a year earlier while the dollar price at Decatur, Illinois was 22 percent higher.

The gain in expected 1985/86 U.S. demand for soybean meal was exceeded by a forecast gain in total supply and, as a result, the September 30, 1986 U.S. carryover was projected (in March 1986) to increase to 420 thousand tons.

Futures Market

Soybean meal futures are traded on the Chicago Board of Trade.

World Soybean Meal Supply & Distribution In Thousands of Metric Tons

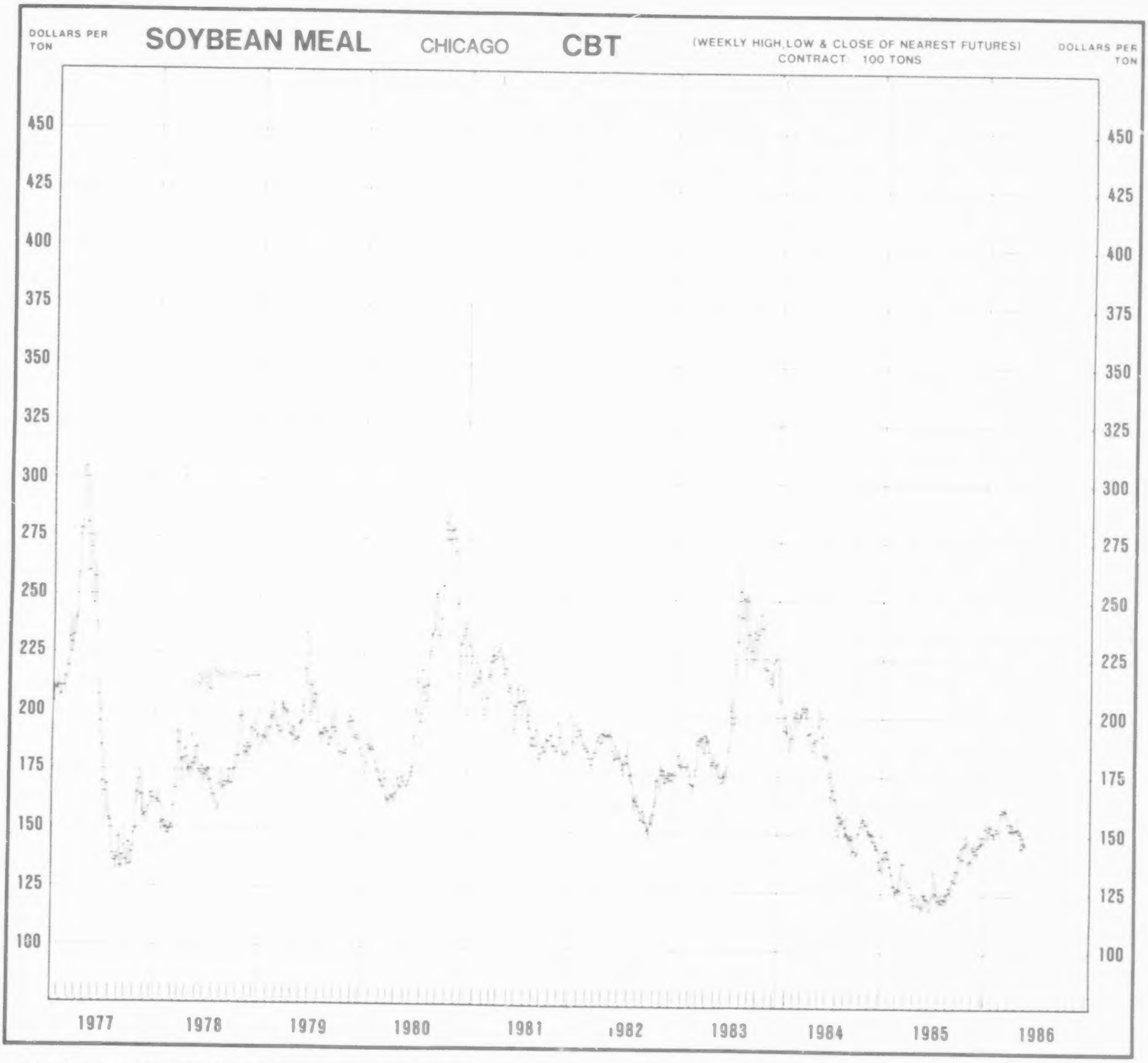
Season Year	Production					Exports			Imports		Consumption			Stocks		
	Brazil	China	EC-10	United States	Total Prod.	Brazil	United States	Total Exp.	France	Total Imp.	EC-10	United States	Total Cons.	Brazil	United States	Total Stocks
1980–1	10,615	2,920	8,210	22,055	56,874	7,740	6,154	18,849	2,969	18,900	13,851	15,958	56,400	1,092	148	2,392
1981–2	9,940	1,520	9,280	22,348	57,250	8,347	6,266	20,780	3,503	20,970	16,850	16,071	57,920	610	159	1,940
1982–3	10,600	1,370	8,750	24,230	60,470	8,239	6,449	23,320	3,330	23,220	15,320	17,510	59,760	680	430	2,550
1983–4	9,702	1,430	7,640	20,646	55,440	7,706	4,860	21,390	3,399	22,500	15,040	15,980	56,030	984	231	3,070
1984–5[1]	10,040	1,350	7,550	22,250	57,840	8,440	4,460	22,090	3,290	22,640	15,150	17,670	58,660	670	350	2,800
1985–6[2]	9,670	1,400	7,510	22,800	59,340	7,800	5,080	22,180	3,310	22,360	14,850	17,690	59,710	570	380	2,620

[1] Preliminary. [2] Forecast. *Source: Foreign Agricultural Service, U.S.D.A.* 607a

Supply and Distribution of Soybean Meal in the United States In Thousands of Short Tons

Year Begin. Oct.	Supply					Distribution				Price Per Ton Bulk, Decatur	
	For Stocks Oct. 1	Production Total	Production For Animal Feed	Production For Edible Protein Pdt's.	Total Supply	Domestic Feed[2]	Exports	Shipments to U.S. Terr.	Total	44% Solvent	49% Solvent
1980–1	226	24,312	23,232	286	24,538	17,591	6,784	—	24,375	218.18	235.13
1981–2	163	24,634	23,500	308	24,797	17,714	6,908	—	24,622	182.52	196.63
1982–3	175	26,714			26,889	19,306	7,109	—	26,415	187.19	200.90
1983–4	474	22,756			23,230	17,615	5,360	—	22,975	188.20	203.20
1984–5[1]	255	24,520			24,774	19,480	4,917	—	24,397	125.40	
1985–6[3]	377	25,133			25,510	19,500	5,600	—	25,100	140.00	

[1] Preliminary. [2] Includes small quantities used for industrial purposes, estimated at 30,000 tons annually. [3] Estimate. *Source: Economic Research Service, U.S.D.A.* T.606



Stocks (at Oil Mills) of Soybean Cake & Meal in the United States In Thousands of Short Tons

Year	Oct. 1	Nov. 1	Dec. 1	Jan. 1	Feb. 1	Mar. 1	April 1	May 1	June 1	July 1	Aug. 1	Sept. 1
1974–5	507.3	508.2	563.7	529.0	541.0	540.0	556.7	470.5	448.1	421.7	394.8	404.5
1975–6	358.3	396.1	441.4	371.4	378.1	419.5	358.3	358.8	462.8	369.8	406.9	350.5
1976–7	354.9	423.5	427.7	353.9	384.7	429.9	412.6	449.0	408.3	390.7	399.0	270.4
1977–8	228.3	270.0	239.8	245.1	251.7	239.7	227.3	308.2	263.3	191.1	262.6	234.1
1978–9	242.9	210.4	178.2	260.5	215.1	198.4	210.4	231.6	207.4	205.3	232.2	140.3
1979–0	224.3	204.1	164.2	207.7	158.7	160.6	219.1	193.9	265.0	262.0	232.4	225.1
1980–1	189.7	211.1	350.0	221.8	209.7	214.4	232.2	184.4	254.0	209.7	156.1	199.7
1981–2	233.8	309.2	314.8	279.4	315.7	324.9	190.3	172.1	309.3	224.9	209.1	189.7
1982–3	175.2	342.8	349.6	332.3	400.2	422.8	341.0	356.1	341.5	272.3	365.2	378.5
1983–4	474.1	419.3	466.8	391.1	475.8	446.7	460.7	418.6	427.2	391.2	355.5	242.7
1984–5	255.4	236.1	285.7	336.8	319.6	334.1	444.6	429.8	495.8	569.6	562.5	458.0
1985–6[1]	386.9	318.4	369.2	326.2	339.4	254.1	354.1					

[1] Preliminary. *Sources: Economic Research Service, U.S.D.A.; Bureau of the Census*

T.613

SOYBEAN MEAL

U.S. Exports of Soybean Cake & Meal by Country of Destination In Thousands of Metric Tons

Yr. Beg. Oct. 1	Belg.-Lux.	Japan	Canada	Denmark	France	W. Germany	Spain	Ireland	Italy	Netherlands	Philippines	Poland	United Kingdom	Yugoslavia	Grand Total
1978–9	3.8	204.5	416.0	65.6	355.1	717.6	253.5	117.9	691.1	748.1	—	243.0	66.8	57.9	5,998
1979–0	13.3	210.0	355.9	48.5	270.2	1,013	58.0	74.1	855.7	1,490	41.1	400.0	69.0	152.9	7,196
1980–1	48.9	153.7	331.2	1	8.0	710.3	21.6	.5	684.3	1,502	0	312.3	56.9	191.4	6,154
1981–2	13.7	51.7	339.6	0	62.6	630.9	82.3	15.8	947.3	2,201	69.7	0	106.9	84.7	6,266
1982–3	10.7	0	401.4	3.5	3.7	1,073	28.6	21.2	953.5	2,066	82.5	57.1	72.7	80.1	6,449
1983–4	7.4	8.2	427.6	0	0	1,154	63.0	4.6	493.0	693.1	293.8	278.5	2.5	8.1	4,862
1984–5[1]	—	4.2	489.9	—	—	195.9	51.5	16.2	502.5	905.0	—	117.2	56.2	51.3	4,460

[1] Preliminary. *Source: The Bureau of the Census, U.S.D. of Commerce* T.607

Average Price of Soybean Meal[1] (44% Solvent) at Decatur In Dollars per Short Ton (Bulk)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1979	196.50	202.40	306.20	202.80	199.70	221.40	213.60	201.00	200.70	193.50	195.20	200.10	202.76
1980	192.40	186.50	176.90	166.60	178.90	173.40	200.40	220.10	247.20	259.10	274.10	236.40	209.33
1981[1]	223.50	212.50	210.40	222.00	221.00	200.90	204.10	202.25	190.00	180.75	178.40	187.50	202.78
1982	191.00	191.00	183.60	190.25	192.40	183.60	181.90	169.00	160.80	157.00	173.40	178.50	179.37
1983	179.75	177.10	177.30	186.75	185.75	175.50	189.30	232.80	233.60	228.60	224.70	216.60	200.64
1984	201.90	184.40	196.40	190.00	187.40	174.40	157.60	151.60	144.90	141.60	135.20	136.75	166.84
1985	135.25	125.20	125.90	117.30	111.50	110.25	144.00	121.40	130.60	138.30	142.50	145.00	126.43
1986	153.25	152.25	163.70	157.00									

[1] Prior to 1981 prices are at Chicago—44% Protein, Bagged. *Source: Consumer Marketing Service, U.S.D.A.* T.608

Production of Soybean Cake & Meal in the U.S. In Thousands of Short Tons

Crop Year	Production													Meal in Form of Soybeans[2]
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Total	
1979–0	2,214	2,359	2,431	2,477	2,319	2,379	2,129	2,167	1,922	1,990	1,945	1,896	26,227	21,118
1980–1	2,253	2,291	2,179	2,133	1,838	2,074	1,976	1,896	1,709	1,681	1,726	1,763	23,518	
1981–2	2,502	2,326	2,451	2,266	2,077	2,050	1,931	2,066	1,844	1,684	1,620	1,819	24,634	
1982–3	2,386	2,581	2,679	2,628	2,221	2,259	1,950	1,993	1,956	1,934	2,053	2,075	26,714	
1983–4	2,288	2,049	2,123	2,220	1,872	2,029	1,760	1,872	1,665	1,629	1,690	1,559	22,756	
1984–5	2,108	2,326	2,381	2,226	1,887	2,024	1,958	2,101	1,953	1,934	1,832	1,801	24,530	
1985–6[1]	2,218	2,288	2,396	2,266	1,857	2,079								

[1] Preliminary. [2] Calculated at 47.5 lbs of meal per bushel. *Sources: Economic Research Service, U.S.D.A., Bureau of Census* T.609

Month End Open Interest of Soybean Meal Futures at the Chicago Board of Trade In Contracts

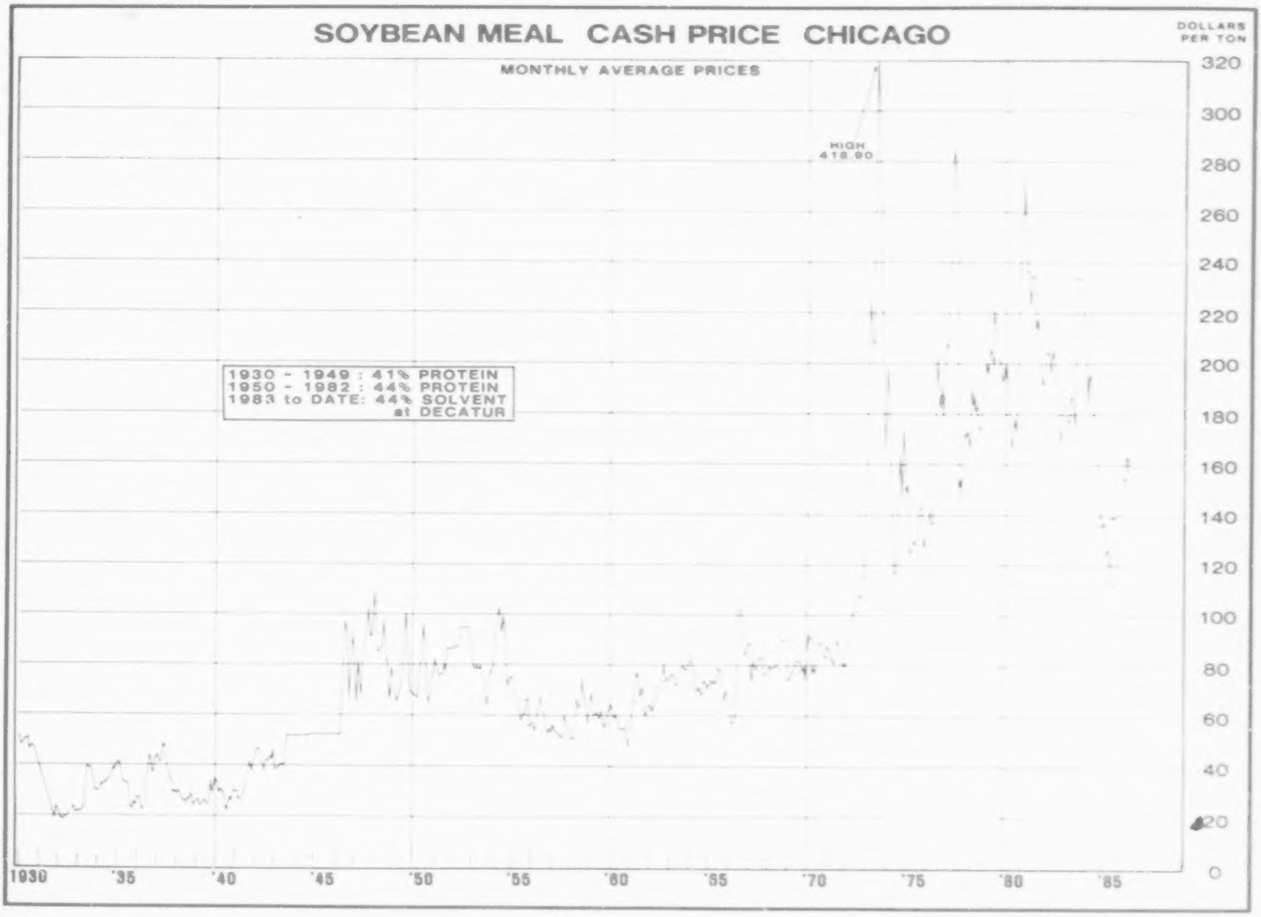
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1979	48,076	54,316	54,873	48,923	49,678	56,627	47,847	47,804	49,348	56,178	52,426	50,072
1980	49,490	53,379	51,143	47,016	46,603	47,769	50,797	61,261	66,805	82,421	84,051	64,965
1981	53,077	50,584	47,002	51,831	45,160	50,909	45,901	48,379	48,152	47,619	48,140	38,804
1982	41,034	39,700	43,830	45,035	45,481	45,877	47,094	50,823	46,833	44,740	47,300	46,016
1983	50,744	44,808	52,979	46,653	42,893	40,900	50,340	66,826	64,266	64,124	63,461	60,248
1984	55,566	54,875	64,511	58,259	74,576	61,051	48,893	48,410	43,264	47,877	46,919	37,167
1985	39,110	43,110	45,164	48,579	54,103	53,405	41,451	44,260	40,703	46,091	42,925	46,875
1986	43,681	48,404	49,219	49,060								

Source: Chicago Board of Trade T.610

Volume of Trading of Soybean Meal Futures at the Chicago Board of Trade In Thousands of Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	172.6	159.2	152.1	183.0	159.1	183.9	370.8	281.5	371.9	413.6	369.3	401.7	3,219
1981	261.9	203.1	220.9	254.3	218.4	294.8	301.8	241.3	276.3	219.0	242.8	304.4	3,040
1982	219.6	238.1	258.6	279.7	197.3	244.0	229.9	225.1	198.8	241.0	233.4	218.9	2,784
1983	269.2	248.0	252.7	272.9	238.6	259.5	320.5	528.2	447.6	349.4	413.1	271.8	3,872
1984	298.8	283.3	299.6	355.5	449.0	424.0	382.2	307.5	271.2	246.3	266.7	237.3	3,822
1985	252.1	232.6	244.5	283.9	285.0	277.3	420.9	250.7	268.5	287.5	292.3	243.9	3,339
1986	260.2	252.9	218.2	289.3									

Source: Chicago Board of Trade T.611



SOYBEAN MEAL CASH PRICE CHICAGO

High, Low & Closing Prices of May Soybean Meal Futures on the Chicago Board of Trade $ per Ton

Year of Delivery		Year Prior to Delivery										Delivery Year					Life of Delivery Range
		Mar	Apr	May	June	July	Aug.	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
1980	High	—	201.0	204.0	233.0	221.0	205.5	211.3	213.0	204.5	201.2	197.5	193.0	182.0	169.0	173.0	233.0
	Low	—	195.7	197.5	202.0	196.0	194.5	197.5	188.5	189.3	189.6	179.9	179.0	160.7	158.1	163.3	158.1
	Close	—	200.0	203.7	202.5	198.7	203.0	207.0	192.7	199.9	189.7	190.3	179.4	161.4	163.9	168.0	—
1981	High	206.5	200.5	201.0	205.0	238.0	242.5	265.0	299.0	300.5	294.8	259.5	232.5	224.0	231.7	230.2	300.5
	Low	193.0	191.0	191.5	190.3	205.0	217.0	241.0	244.3	275.0	220.7	213.7	214.5	205.2	216.9	214.0	190.3
	Close	195.2	195.5	192.0	205.0	229.6	242.5	251.7	290.2	292.7	249.0	220.7	215.2	220.8	226.9	214.0	—
1982	High	—	261.5	252.0	242.0	241.0	230.0	218.0	210.5	206.5	203.5	197.0	197.7	188.5	196.0	196.5	261.5
	Low	—	248.5	234.5	221.0	223.0	207.0	203.5	201.8	194.1	181.5	187.8	182.7	178.4	186.2	188.0	181.5
	Close	—	249.5	239.0	225.0	231.5	209.0	206.5	203.5	197.3	188.3	195.9	186.1	187.7	190.9	189.0	—
1983	High	—	215.0	210.0	205.5	199.0	195.5	176.0	169.0	180.5	178.5	186.0	186.1	192.8	193.3	190.3	215.0
	Low	—	203.0	201.5	197.0	189.5	171.0	165.3	160.3	166.5	171.3	174.1	170.6	172.5	183.3	176.1	160.3
	Close	—	209.5	201.5	197.7	192.0	174.0	166.5	166.0	178.0	175.2	185.6	171.4	189.7	189.4	181.3	—
1984	High	219.5	217.5	213.0	198.0	229.0	267.5	261.0	246.0	249.6	229.5	221.5	201.5	210.0	205.4	199.0	267.5
	Low	213.5	207.5	194.2	185.0	194.0	218.8	229.0	229.5	220.0	212.2	193.2	188.9	200.5	182.5	183.0	182.5
	Close	215.2	211.5	194.2	195.0	216.2	244.0	240.0	232.0	226.7	225.0	197.4	200.7	202.9	183.8	198.4	—
1985	High	—	204.5	195.7	201.0	197.0	180.0	172.0	175.0	173.3	165.5	154.0	147.0	141.5	137.0	124.9	204.5
	Low	—	196.0	190.5	188.2	169.5	167.5	160.0	160.5	163.0	150.1	145.6	129.5	130.1	120.1	118.5	118.5
	Close	—	196.0	198.0	200.5	171.3	171.0	162.0	169.7	164.8	151.1	147.6	130.3	138.1	120.5	118.6	—
1986	High	—	162.5	154.3	151.5	158.0	139.5	145.2	151.9	152.5	157.0	160.5	161.5	163.9	159.5		
	Low	—	152.8	145.0	143.0	135.5	132.5	134.0	139.0	136.0	141.5	150.0	150.3	153.5	150.5		
	Close	—	152.8	146.2	143.7	137.0	135.5	141.0	151.0	145.0	153.4	154.0	161.2	153.7	157.2		

Source: Chicago Board of Trade

T 612

Soybean Oil

About 30 percent of the world production of vegetable oils in 1984/85 was expected to be accounted for by soybean oil, slightly below the level of the previous season. Soybean oil's share of total world production of fats and oils (including industrial and marine oil, and animal fats such as butter, tallow and grease) was about unchanged from the 1983/84 season at 23 percent. In the 1985/86 season, soybean oil was expected to account for 29 percent of vegetable oil output and less than 23 percent of global fats and oils production. U.S. soybean oil was expected to account for 39 percent of world soybean oil production in the 1985/86 season.

Soybean oil accounted for a reduced 28 percent of world consumption of major vegetable and marine oils in 1984/85 and was expected to account for about the same percentage in 1985/86, according to a USDA estimate in March, 1986. World exports of soybean oil in 1985/86 were expected to drop by close to 10 percent, to 3.33 million tonnes. U.S. exports were expected to account for about 18 percent of total world exports versus 20 percent in 1984/85.

World stocks of major vegetable and marine oils at the end of the 1985/86 season were projected by the USDA to be about the same as a year earlier.

In the U.S., 1985/86 season, beginning stocks (Oct. 1) were 632 million pounds, 12 percent lower than a year earlier. In March, 1986, the USDA estimated 1985/86 production of soybean oil at 11.7 billion pounds, about 2 percent above 1984/85 output, primarily reflecting expectations of increased export demand for soybean meal.

Domestic demand for soybean oil in the 1985/86 season was forecast by the USDA to be marginally lower than the 9.92 billion pounds consumed in 1984/85. Relatively low prices for competing oils such as palm and coconut oil were expected to cut into the domestic demand for soybean oil. Primarily because of the increased availability and low prices of alternative oils, U.S. soybean oil exports were expected to drop by about 20 percent in the 1985/86 season.

With overall U.S. utilization of soybean oil expected to be about 3 percent larger than in 1984/85 and supplies larger than a year earlier, ending stocks were projected to virtually double, to about 1.12 billion pounds.

The crush for oil situation that prevailed for much of the past couple of years disappeared with the increasing world supplies and sharp export competition. India and Pakistan, which traditionally were major importers of U.S. soybean oil, have turned increasingly to other sources for supplies. Palm, sunflowerseed and rapeseed oils are making increasing inroads in areas previously dominated by soybean oil. In addition, India, the world's largest importer of vegetable oils, continues to take steps to reduce its reliance upon imports. Recently, India once again reduced the percentage of imported oils permitted in the manufacture of vanaspati, to 30 percent. A major increase in the tariff on imported oils was announced in January, 1986, to 45 percent from the previous 5 percent, and the domestic price of vegetable oils was permitted to rise, in order to encourage domestic production of oilseeds.

Futures Market

Soybean oil futures are traded on the Chicago Board of Trade.

World Supply & Demand of Soybean Oil In Thousands of Metric Tons

Season Crop Year	Production				Exports			Imports		Consumption					Stocks[3]	
	Brazil	EC-10	United States	Total Prod.	Brazil	United States	Total Exp.	India	Total Imp.	Brazil	EC-10	India	United States	Total Cons.	United States	Total Stocks
1980-1	2,601	1,829	5,112	12,849	1,153	740	3,343	639	3,440	1,534	1,477	708	4,134	12,860	787	1,704
1981-2	2,406	2,007	4,980	12,730	852	942	3,510	460	3,440	1,542	1,590	550	4,320	12,950	500	1,370
1982-3	2,564	1,911	5,462	13,560	1,020	918	3,810	537	3,670	1,612	1,494	540	4,472	13,250	572	1,530
1983-4	2,352	1,710	4,932	12,810	987	830	4,030	810	3,940	1,510	1,340	760	4,354	13,020	327	1,220
1984-5[1]	2,460	1,690	5,202	13,300	1,000	750	3,720	400	3,640	1,560	1,340	570	4,500	13,150	290	1,290
1985-6[2]	2,340	1,690	5,318	13,570	750	610	3,380	220	3,180	1,630	1,310	490	4,490	13,170	510	1,490

[1] Preliminary [2] Forecast [3] End of Season *Source:* Foreign Agricultural Service, U.S.D.A. 168b

Production, Consumption, Stocks and Foreign Trade of Soybean Oil in the U.S. In Millions of Pounds

Year	Production		Consumption		Stocks December 31		Imports for Consumption	Exports	
	Crude	Refined	In Refining	In End Pdt's.	Crude	Refined		Crude	Refined
1976	9,640	7,185	7,476	7,577	1,141	347.1	—	901.7	77.3
1977	8,836	7,790	8,092	7,451	524.0	340.0	.2	1,427.3	81.3
1978	10,625	8,618	8,955	8,175	623.1	347.5	—	1,560.8	77.8
1979	11,504	9,110	9,456	8,656	656.6	373.5	—	2,489	
1980	12,097	8,982	9,300	8,585	1,369.6	368.2	—	2,417	
1981[1]	11,301	9,461	9,817	9,024	1,680.2	343.6	—	1,805	
1982[1]	11,183	9,671	10,042	9,307	1,241.1	345.6	—	2,057	
1983[1]	11,653	9,590	9,939	9,418	1,559.3	360.0	—	1,732	
1984[1]	11,004	9,716	9,986	9,932	500.2	276.9	—		
1985[1]	11,496	9,863	10,200	10,499	969.4	1,132	—		

[1] Preliminary *Source: Bureau of Census* T.614

U.S. Exports of Soybean Oil,[1] by Country of Destination In Thousands of Metric Tons

Yr. Beg. Oct. 1	Australia	Colombia	Canada	Chile	Ecuador	France	Haiti	Peru	India	Israel	Mexico	Morocco	Pakistan	Panama	Egypt	Grand Total
1975-6	13.1	14.2	31.8	1.0	19.5	—	14.3	14.5	15.8	9.9	3.1	4.9	150.8	13.2	.5	443
1976-7	20.1	27.3	26.0	12.0	16.2	—	17.2	57.3	252.2	3.1	15.4	3.0	119.2	12.5	1.4	702
1977-8	21.0	44.1	27.7	22.0	26.0	5.0	13.8	68.6	247.7	6.3	29.6	5.6	95.8	8.3	6.1	933
1978-9	16.2	84.1	20.9	22.8	22.4	3.6	17.2	29.4	181.1	9.8	5.1	6.0	163.3	19.0	13.9	1,059
1979-0	16.4	82.6	14.8	13.2	35.3	2.9	22.8	36.2	427.7	9.6	31.4	2.3	147.4	17.9	6.0	1,220
1980-1	16.5	60.3	7.8	22.8	38.6	0	22.4	41.2	61.8	5.2	21.6	5.0	125.7	14.7	3.4	740
1981-2	22.6	77.4	5.4	1.7	36.2	0	8.8	46.8	68.4	.3	91.1	9.7	259.9	21.7	6.9	942
1982-3	5.0	69.5	7.5	—	50.4	—	20.4	70.2	54.9	.4	16.3	9.0	236.7	16.4	3.5	918
1983-4	.3	24.8	9.8	—	41.1	—	12.5	24.9	169.4	.5	68.1	2.5	216.1	15.7	3.6	827
1984-5[2]	.2	22.2	12.9	—	44.7	—	16.1	11.4	62.8	.9	45.4	3.8	168.4	8.0	3.9	753

[1] Crude & refined oil combined as such. [2] Preliminary. *Source: The Bureau of the Census, U.S.D. of Commerce* T.615

Supply & Distribution of Soybean Oil in the U.S. In Millions of Pounds

				Domestic Disappearance											
					Food					Non-Food					
Year Begin Oct.	Production	Stocks Oct. 1	Exports & Shipments	Total Domestic	Shortening	Margarine	Cooking & Salad Oils	Other Edible	Total Food	Paint & Varnish	Resins & Plastics	Fatty Acids	Other Inedible	Total Non-Food	Total Disappearance
1975-6	9,630	561	1,035	7,906	2,416	1,691	3,274	24	7,405	94	96	23	25	501	
1976-7	8,578	1,251	1,607	7,454	2,189	1,568	3,165	25	6,947	85	83	26	36	507	
1977-8	10,288	771	2,137	8,273	2,279	1,585	3,325	29	7,621	87	79	42	33	549	
1978-9	11,323	729	2,411	8,942	2,480	1,593	3,825								
1979-0	12,105	776	2,690	8,981	2,680	1,643	4,060								
1980-1	11,270	1,210	1,631	9,113	2,660	1,651	4,041								10,744
1981-2	10,979	1,736	2,077	9,536	2,991	1,723	4,368	51	9,133						11,612
1982-3	12,040	1,103	2,025	9,857	2,944	1,615	4,668	58	9,284						11,882
1983-4	10,872	1,261	1,824	9,588	3,207	1,494	4,442	101	9,245						11,412
1984-5[1]	11,464	721	1,660	9,917	3,655	1,589	4,800	129	10,172						11,577
1985-6[2]	11,723	628	1,350	9,900											11,250

[1] Preliminary. [2] Forecast. *Source: Economic Research Service, U.S.D.A.* T.623

U.S. Production of Crude Soybean Oil In Millions of Pounds

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
1975-6	783.9	776.7	846.7	807.4	757.6	852.4	846.1	869.8	813.9	788.7	720.5	766.1	9,630
1976-7	807.4	804.0	805.7	786.7	791.2	823.7	747.3	682.4	631.1	566.6	553.6	578.2	8,578
1977-8	821.9	922.3	931.5	911.9	809.5	943.3	866.9	908.2	795.1	777.9	815.8	783.3	10,287
1978-9	984.3	974.8	1,050	989.1	902.3	982.2	939.6	964.7	930.5	899.9	856.7	849.9	11,324
1979-0	1,020	1,068	1,102	1,115	1,065	1,098	993.7	1,010	901.6	927.8	913.8	890.1	12,105
1980-1	1,080	1,078	1,024	1,011	887.8	991.3	954.2	914.9	830.7	815.8	827.2	855.6	11,271
1981-2	1,125	1,018	1,070	995.6	917.7	912.1	866.8	930.2	828.4	765.6	732.0	818.3	10,979
1982-3	1,079	1,145	1,191	1,167	997.0	1,015	881.3	908.9	891.3	888.0	930.2	945.3	12,040
1983-4	1,081	957.7	990.9	1,053	896.9	972.7	846.7	906.3	803.5	788.8	819.4	755.9	10,872
1984-5	995.5	1,070	1,096	1,027	879.0	946.0	917.6	983.3	918.9	912.6	868.8	853.4	11,468
1985-6[1]	1,040	1,053	1,096	1,086	894.8	1,006							

[1] Preliminary. *Source: Bureau of the Census* T.618

U.S. Production of Refined Soybean Oil In Millions of Pounds

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
1976-7	575.4	596.3	578.0	564.4	578.4	710.9	636.9	651.6	589.3	563.9	661.0	623.8	7,330
1977-8	700.1	764.2	745.0	705.6	653.2	801.4	738.0	732.1	649.9	636.8	725.3	679.9	8,532
1978-9	782.8	747.7	765.7	753.3	681.7	768.9	760.1	835.4	742.8	748.3	762.8	693.0	9,043
1979-0	805.9	797.6	760.3	801.9	760.5	767.7	687.1	712.8	669.0	720.3	760.7	764.5	9,038
1980-1	784.1	760.5	763.1	741.6	706.3	833.9	741.2	754.9	812.9	765.4	813.3	812.1	9,289
1981-2	833.6	840.9	805.2	768.7	767.6	866.4	754.5	817.3	866.3	775.4	811.7	794.0	9,702
1982-3	824.6	827.8	795.1	784.1	727.1	841.8	800.9	843.1	824.0	778.7	837.7	828.8	9,714
1983-4	839.2	747.2	737.1	797.9	813.2	841.8	763.8	859.5	794.6	767.9	752.2	760.9	9,475
1984-5	907.6	835.5	821.2	838.7	796.1	835.5	865.0	899.5	773.1	763.9	806.2	794.4	9,937
1985-6[1]	865.7	834.8	790.0	804.2	751.1	819.5							

[1] Preliminary. *Source: Bureau of the Census* T.617

Soybean Oil Consumption in End Products in the U.S. In Millions of Pounds

Year	Jan.	Feb	Mar	Apr.	May	June	July	Aug	Sept	Oct	Nov	Dec.	Total
1975	553.4	521.2	528.2	540.3	527.4	531.3	555.3	562.8	604.8	672.0	609.2	624.4	6,830
1976	658.0	617.6	687.3	623.4	625.9	634.6	626.8	635.1	623.7	621.3	609.1	613.8	7,577
1977	571.5	591.2	694.5	597.1	611.0	553.8	517.9	629.8	621.5	658.6	682.3	721.9	7,451
1978	664.1	648.8	771.7	686.5	662.4	640.5	596.2	699.8	672.5	715.9	709.3	707.5	8,175
1979	695.1	636.2	755.3	682.4	775.0	701.6	711.4	744.8	700.9	781.4	742.2	730.1	8,656
1980	750.7	719.4	762.9	671.6	693.6	683.7	671.2	754.5	737.1	719.1	682.6	738.7	8,585
1981	698.7	680.7	775.1	722.3	728.7	774.0	741.1	755.1	796.4	796.8	783.6	749.3	9,002
1982	740.0	737.7	809.6	715.2	761.0	834.6	775.2	811.9	820.5	799.9	763.1	733.2	9,302
1983	761.6	702.2	827.3	765.9	814.9	830.3	745.1	847.0	894.3	812.7	711.4	705.2	9,418
1984	827.6	821.7	837.8	781.1	857.4	824.4	744.7	772.2	780.6	932.0	883.4	856.1	9,919
1985	989.0	804.0	867.1	885.9	940.8	810.5	825.9	856.1	863.7	922.4	864.2	869.3	10,508
1986[1]	860.1	818.8	870.1										

[1] Preliminary. *Source: Bureau of the Census* T.624

U.S. Exports of Soybean Oil (Crude & Refined) In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1975	129.0	71.6	116.1	57.6	72.9	55.7	65.3	13.1	13.5	43.8	78.9	40.4	758.0
1976	32.6	120.2	89.6	55.5	160.9	74.4	77.6	41.8	151.5	100.8	107.7	75.8	1,088
1977	103.7	92.3	236.4	103.3	209.4	159.9	154.2	72.0	66.0	108.8	185.5	175.3	1,667
1978	113.1	141.8	252.6	218.9	176.4	147.2	165.5	108.8	193.4	96.8	154.8	175.4	1,945
1979	219.1	249.8	199.0	185.6	107.3	299.0	166.2	187.4	159.1	127.8	208.5	261.9	2,371
1980	173.4	250.0	325.4	269.6	327.3	194.6	109.7	175.7	171.2	112.5	84.7	120.5	2,315
1981	116.0	113.8	202.8	76.1	109.6	108.8	93.1	291.7	97.9	187.2	146.6	184.3	1,698
1982	43.9	176.7	126.5	148.5	103.3	208.0	270.2	237.4	244.1	181.1	174.9	142.0	2,057
1983	124.0	225.9	90.4	305.7	127.5	94.1	208.9	125.1	225.1	55.1	54.7	95.5	1,732
1984	161.3	289.9	258.9	163.3	208.3	157.3	140.0	73.0	156.3	200.3	214.6	189.6	2,068
1985[1]	66.7	198.3	184.9	66.9	52.4	138.8	174.4	70.1	102.8	125.4	38.1	74.3	923.3

[1] Preliminary. *Source: Dept. of Commerce* T.619

U.S. Stocks of Soybean Oil (Crude & Refined) at Factory & Warehouses In Millions of Pounds

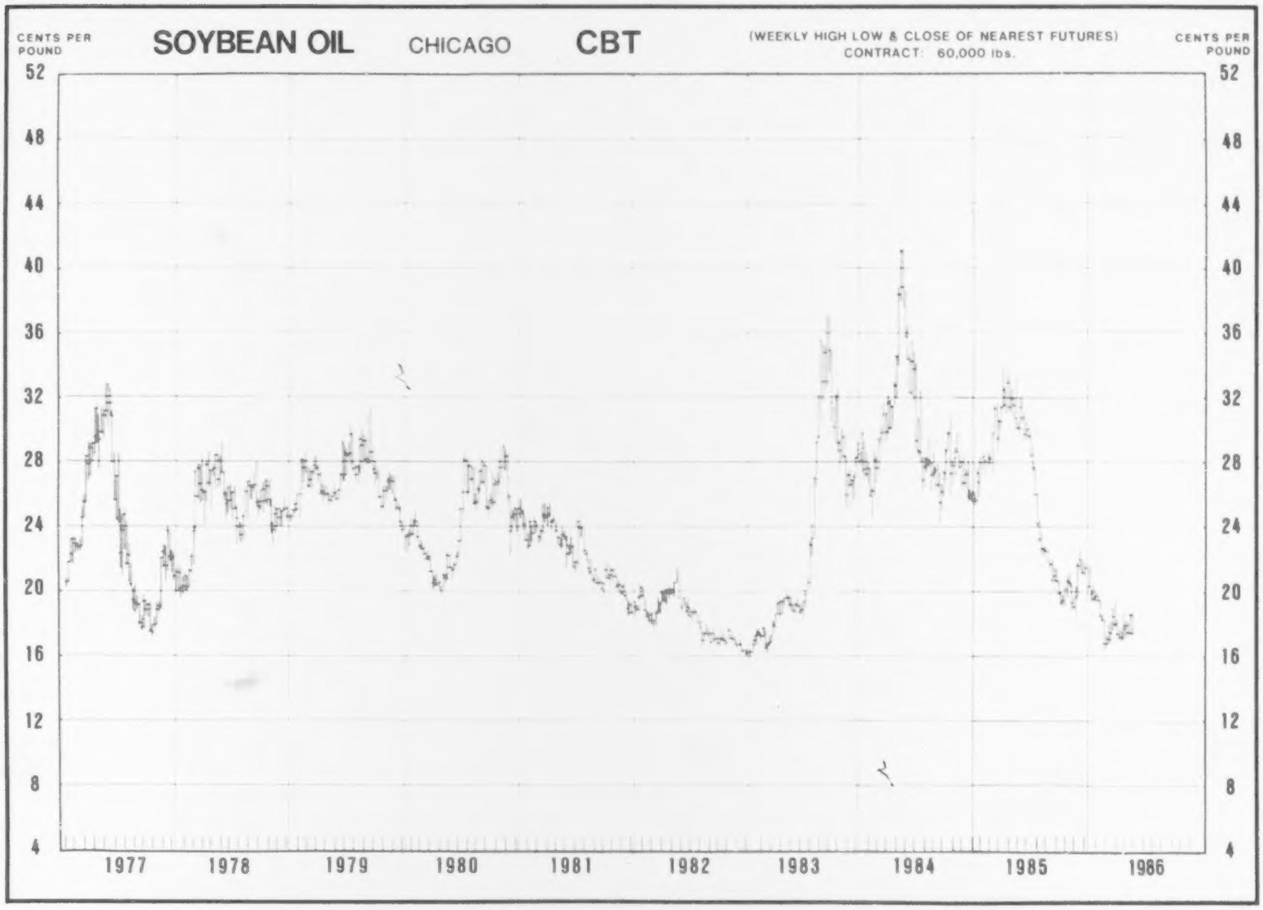
Year	Oct. 1	Nov. 1	Dec. 1	Jan. 1	Feb. 1	Mar. 1	April 1	May 1	June 1	July 1	Aug. 1	Sept. 1
1975-6	560.5	568.0	657.7	799.9	844.8	913.3	946.0	1,061	1,109	1,275	1,230	1,295
1976-7	1,251	1,351	1,432	1,488	1,606	1,616	1,493	1,485	1,361	1,174	1,037	942.5
1977-8	771.1	756.4	771.1	864.0	913.8	856.5	803.8	822.2	828.7	834.4	820.8	777.5
1978-9	728.6	813.4	837.1	970.6	932.2	942.8	1,004	987.3	1,043	922.9	915.4	815.1
1979-0	775.8	819.8	867.3	1,030	1,155	1,205	1,176	1,184	1,145	1,226	1,305	1,263
1980-1	1,210	1,428	1,677	1,738	1,900	1,976	2,017	2,119	2,166	2,139	2,024	1,783
1981-2	1,736	1,790	1,884	2,024	2,160	2,141	2,141	2,112	2,018	1,889	1,647	1,398
1982-3	1,103	1,208	1,305	1,587	1,713	1,700	1,842	1,600	1,552	1,546	1,411	1,408
1983-4	1,261	1,453	1,661	1,919	1,907	1,583	1,520	1,380	1,203	1,012	989.6	871.0
1984-5	720.5	597.2	580.1	777.1	883.5	724.8	715.6	665.9	706.7	732.0	724.7	715.7
1985-6[1]	632.5	636.1	810.4	969.4	1,167	1,181	1,243					

[1] Preliminary. *Source: Bureau of the Census* T.616

Average Prices of Crude Domestic Soybean Oil (in Tank Cars) F.O.B. Decatur In Cents per Pound

Year	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average
1975-6	21.4	18.9	16.8	16.2	16.3	16.6	16.3	15.8	17.6	20.9	20.4	22.5	18.3
1976-7	20.7	21.8	21.0	20.9	22.4	26.5	29.6	31.3	28.3	23.8	21.1	19.2	23.9
1977-8	18.8	21.0	22.6	20.9	21.6	26.6	26.8	28.8	26.9	25.9	26.3	27.8	24.5
1978-9	26.7	23.7	25.8	25.8	27.3	26.9	26.7	27.8	27.4	29.1	29.2	30.0	27.2
1979-0	27.9	27.8	26.2	23.6	23.4	22.1	20.3	20.8	21.6	26.2	25.9	26.1	24.3
1980-1	25.1	26.7	23.7	23.0	22.0	23.1	23.4	21.6	21.3	22.8	20.8	19.4	22.7
1981-2	19.7	19.9	18.9	18.4	18.2	18.5	19.7	20.6	19.4	19.0	17.9	17.4	19.0
1982-3	17.4	17.6	16.6	16.4	17.3	17.7	19.3	19.8	19.4	21.6	30.2	34.3	20.6
1983-4	30.7	28.1	27.3	28.3	27.2	30.1	32.1	39.0	36.0	31.0	29.0	28.0	30.6
1984-5	30.6	31.9	28.4	28.0	29.6	31.4	33.6	32.5	32.5	29.1	24.1	22.5	29.5
1985-6	20.7	20.6	21.4										

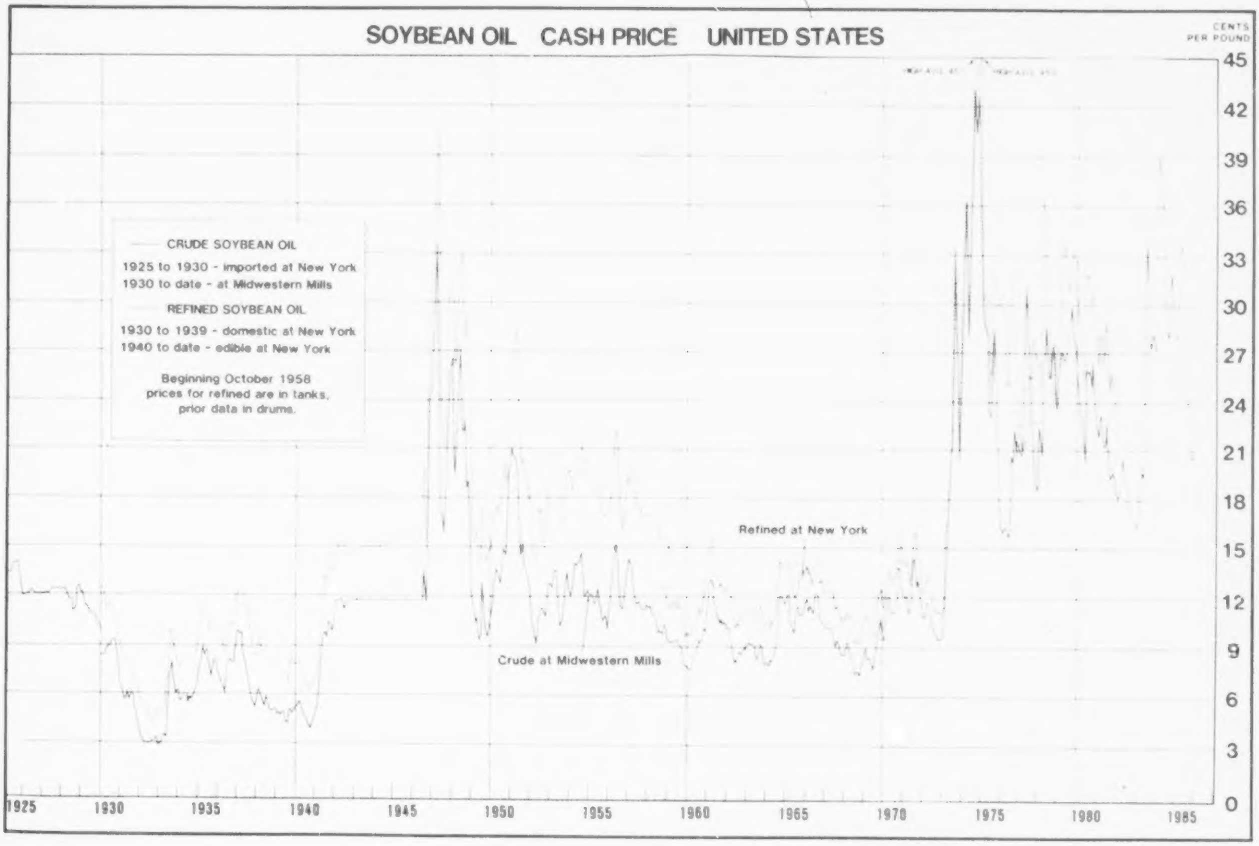
Source: Bureau of Labor Statistics T 620



High, Low & Closing Prices of May Soybean Oil Futures on the Chicago Board of Trade ¢ per lb.

Year of Delivery		Year Prior to Delivery										Delivery Year					Life of Delivery Range
		Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	
1981	High	26.15	24.00	24.05	25.65	29.40	28.55	29.70	29.20	31.45	30.75	27.35	25.55	25.40	25.51	24.05	31.45
	Low	23.60	22.35	22.35	22.80	25.45	26.50	26.80	26.81	28.25	24.25	23.40	23.60	23.50	23.60	22.61	22.35
	Close	23.60	22.37	23.38	25.62	28.30	28.05	27.21	28.28	30.70	26.00	23.57	24.84	25.15	23.84	22.85	—
1982	High	28.60	29.02	28.10	26.50	27.90	25.90	24.50	24.25	23.25	21.85	21.01	21.08	19.45	20.25	20.90	29.02
	Low	27.13	27.75	26.30	24.70	24.85	23.50	22.52	22.45	21.20	19.65	19.70	18.72	18.26	18.88	19.70	18.26
	Close	28.60	27.75	26.35	25.02	25.90	23.60	22.87	23.00	21.21	19.76	20.88	19.13	18.88	19.83	20.72	—
1983	High	—	—	22.90	21.65	20.42	19.90	19.35	18.60	18.40	17.75	17.96	18.30	18.59	19.64	19.85	22.90
	Low	—	—	21.66	20.30	19.73	18.15	18.00	17.50	17.25	16.91	16.61	16.65	16.80	18.54	18.92	16.61
	Close	—	—	21.66	20.32	19.73	18.85	18.00	17.60	17.48	16.91	17.91	16.74	18.56	19.61	19.29	—
1984	High	—	21.60	21.60	20.75	25.25	34.00	35.85	22.60	30.70	30.10	30.60	28.82	31.55	33.70	41.15	41.15
	Low	—	20.75	19.27	19.75	20.50	25.05	29.90	28.35	26.20	26.50	27.00	25.05	27.72	29.70	31.97	19.27
	Close	—	21.53	20.20	20.75	24.30	32.75	31.00	28.88	27.74	30.08	27.68	28.25	29.82	32.47	39.87	—
1985	High	—	—	29.95	30.10	27.15	27.45	26.50	25.75	26.10	25.60	27.20	27.70	30.60	34.00	33.27	34.00
	Low	—	—	28.10	26.92	23.15	24.35	22.80	23.85	23.78	23.95	24.40	26.30	26.15	30.05	30.65	22.80
	Close	—	—	28.88	27.92	24.35	26.70	23.80	25.07	24.55	24.61	26.67	27.26	30.52	32.53	32.93	—
1986	High	24.40	27.85	27.45	25.80	25.40	24.20	22.65	22.15	21.60	23.04	22.50	20.30	19.27	19.25		
	Low	24.40	24.40	24.40	24.20	23.90	22.30	21.45	20.02	19.25	19.30	19.91	16.76	16.96	16.90		
	Close	24.40	27.20	24.53	24.86	24.25	22.60	22.20	20.92	19.60	22.01	20.14	17.06	19.24	18.65		

Source: Chicago Board of Trade T.622



Month-End Open Interest of Soybean Oil Futures of the Chicago Board of Trade In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1978	40,175	44,145	49,994	49,592	55,292	52,682	52,230	49,553	50,322	60,842	57,363	54,133
1979	50,713	57,729	57,893	55,657	57,820	64,671	58,852	58,258	60,854	67,778	65,893	64,374
1980	62,515	63,472	59,707	52,805	61,089	65,949	64,710	63,908	66,723	75,815	91,407	71,527
1981	58,671	65,580	57,956	67,241	56,968	63,400	54,007	56,847	49,411	50,786	54,232	48,295
1982	53,029	53,375	49,824	53,395	57,366	58,151	56,863	50,574	44,091	41,930	45,976	50,290
1983	49,329	49,360	57,446	59,894	58,635	55,678	53,842	71,341	73,946	79,303	74,817	67,695
1984	58,227	54,536	53,081	60,190	65,570	58,857	49,323	46,848	41,617	40,386	43,856	40,264
1985	38,534	44,803	48,093	60,717	58,629	59,856	41,451	56,313	48,963	45,951	44,186	48,361
1986	50,584	55,010	57,640	57,852								

Source: Chicago Board of Trade

T 625

Volume of Trading of Soybean Oil Futures at the Chicago Board of Trade In Thousands of Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1978	209.5	183.4	312.7	266.8	258.1	278.6	215.2	236.3	204.3	285.4	257.3	201.7	2,909
1979	215.0	291.5	233.8	254.4	212.3	321.7	313.0	252.5	262.0	311.6	222.3	191.6	3,082
1980	200.7	210.3	177.1	185.0	198.2	216.9	361.8	284.8	329.9	332.6	327.0	343.7	3,168
1981	243.8	231.1	237.9	254.0	221.7	274.8	355.1	233.7	240.2	235.0	228.1	292.1	3,047
1982	219.1	245.6	239.8	272.2	277.7	270.7	264.5	294.9	260.5	195.4	307.4	221.6	3,049
1983	273.6	244.1	264.4	273.2	233.1	288.9	332.6	452.3	445.4	378.7	355.5	316.7	3,859
1984	358.3	346.5	337.7	360.0	513.7	436.7	353.6	280.8	244.2	269.5	288.0	220.5	4,010
1985	264.2	256.0	311.6	405.0	416.4	308.7	341.1	281.5	233.0	270.0	281.5	278.4	3,647
1986	263.1	235.9	254.0	311.7									

Source: Chicago Board of Trade

T 626

Soybeans

Soybeans continue to dominate world production of major oilseeds, and account for about 48 percent of estimated world production in the 1985/86 season, unchanged from the previous season. In March 1986, the Foreign Agricultural Service of the USDA estimated world oilseeds production at 194.41 million tonnes, up nearly 3 percent from 1984/85 output. Major oilseeds include soybeans, cottonseed, peanuts (ground-nuts), sunflowerseed, rapeseed, flaxseed, copra and palm kernels. In the 1985/86 season, cottonseed was expected to account for 16 percent of total production, peanuts—11 percent, sunflowerseed—10 percent, and rapeseed—10 percent.

World production of soybeans in 1985/86 was forecast by the USDA in March 1986 at 94.13 million tonnes, up close to 3 percent from 1984/85 production. The U.S. remained, by far, the world's largest producer of soybeans, accounting for 61 percent of estimated 1985/86 world production compared with 13 percent for Brazil, 10 percent for China, and 8 percent for Argentina.

The global soybean crush in 1985/86 was forecast by the USDA at 75.25 million tonnes, up 2.5 percent from 1984/85. The U.S. was expected to account for 38 percent of the world total versus 17 percent for Brazil, 13 percent for the EC, and 5 percent each for Argentina and Japan.

World exports of soybeans continue to be dominated by the U.S., which accounted for a reduced 65 percent of the total in 1984/85, compared with 13 percent for Argentina and 14 percent for Brazil. World exports in 1985/86 were expected to be nearly 4 percent above the 24.98 million tonnes of 1984/85, with the U.S. share increasing to 81 percent and the share of Argentina to 12 percent. Brazil's share of world exports in 1985/86 was expected to drop to about 2 percent of the total because of that country's drought-reduced 1986 crop.

World ending stocks for the 1985/86 season were projected to increase by 25 percent, to about 20.70 million tonnes from 16.50 million tonnes at the end of the 1984/85 season. The U.S. was expected to hold about 66 percent of 1985/86 world ending stocks versus 52 percent a year earlier.

U.S. soybean production in 1985 was 13 percent above the 1984 crop. Both planted and harvested acreage decreased 7 percent, but average yield per acre increased 6.0 bushels, to a record-high 34.1 bushels per acre. Total U.S. supply for the 1985/86 season ending August 31, 1986 was estimated to be nearly 19 percent above 1984/85 supply of 2.04 billion bushels and the third highest of record. In March 1986, the USDA estimated the 1985/86 U.S. crush at 1.06 billion bushels, up about 3 percent from 1984/85 crushings of 1.03 billion. The U.S. soybean industry, which had exported 45 percent of the 1983 crop, exported only 32 percent of the 1984 crop, primarily because of competition from Brazil and from other oilseeds. Exports in the 1985/86 season were expected to increase to 37 percent of the 1985 U.S. soybean crop, largely because of reduced availability in Brazil. Nevertheless, 1985/86 U.S. ending stocks were projected to increase by about 58 percent from the August 31, 1985 figure of 316 million bushels, to a record-large 500 million bushels.

Prospective 1986-crop U.S. soybean plantings, based on a USDA report released March 18, 1986, totaled 62.0 million acres, down 2 percent from 1985 plantings, and the smallest planted acreage since 1977. However, because of uncertainty about some details of the 1985 Food Security Act, the level of actual plantings was questionable.

For the first time since the late 1960's the CCC was expected to acquire substantial stocks of soybeans under the loan program—a development which would exert considerable influence on prices in both the remainder of the 1985/86 season and into the 1986/87 marketing year. Under provisions of the farm bill, generic market certificates would permit farmers in the wheat and feedgrain programs to accept all or part of their advance deficiency and diversion payments in the grain of their choice (including soybeans). Redemption of these certificates for soybeans could force lower soybean prices.

U.S. Government Support Program

The basic loan rate for 1986-crop soybeans is $5.02 per bushel. However, the Secretary of Agriculture could lower the rate to a minimum of $4.77 a bushel. The 1986-crop loan rate must be announced by the Secretary in early August 1986.

Futures Markets

Soybean futures in the U.S. are currently traded on the Chicago Board of Trade (5,000 bushels) and on the MidAmerica Commodity Exchange (1,000 bushels) in Chicago.

World Production of Soybeans In Thousands of Metric Tons

Year of Harvest[3]	Argentina	Brazil	Canada	China	Colombia	India	Indonesia	Japan	South Korea	Mexico	Romania	Paraguay	Thailand	United States	USSR	World Total
1977	2,700	9,541	580	7,300	135		523	111	319	470	191	333	90	47,947	540	72,157
1978	3,700	10,240	516	7,565	137		680	190	293	330	230	549	100	50,898	634	77,266
1979	3,600	15,156	671	7,460	154	350	653	192	257	680	383	575	102	61,722	467	93,705
1980	3,500	15,200	690	7,940	89	442	704	174	216	280	448	600	105	48,772	525	80,910
1981	4,150	12,835	607	9,325	99	467	514	212	257	680	268	600	131	54,435	450	86,020
1982	4,200	14,750	848	9,030	127	491	590	226	233	550	301	520	117	59,610	500	93,260
1983[1]	7,000	15,400	721	9,765	85	700	625	217	226	600	300	550	110	44,518	560	82,345
1984[3]	6,500	17,500	934	9,700						550		750		50,644	500	91,600
1985[3]	7,300	12,500		9,500								500		57,113		94,130

[1] Preliminary. [2] Projected. [3] Split year includes Northern Hemisphere crops harvested in the late months of the first year shown combined with Southern Hemisphere crops harvested in the early months of the following year. *Source: Foreign Agricultural Service, U.S.D.A.* T.627

U.S. Soybean Price Support Program & Official Crop Production Reports In Millions of Bushels

	Quantity Put Under Support		Sept. 1 Stocks		National Avg. Support		(In Thousands of Bushels) Crop Production Reports					
Year		Deliveries to C.C.C.	Total	Gov't Owned	% of Parity	$ Per Bu.	August 1	September 1	October 1	November 1	December 1	Final
1973	124.2	[2]	59.6	—	45	2.25	1,539,771	1,598,746	1,588,361	1,574,586	1,566,518	1,547,543
1974	34.6	—	170.8	—	37	2.25	1,314,232	1,315,792	1,262,352	1,243,912	1,233,425	1,216,287
1975	—	—	188.2	.4	—None—		1,457,672	1,442,422	1,473,782	1,519,882	1,521,370	1,548,344
1976	22.5	—	244.9	—	34	2.50	1,344,343	1,274,263	1,249,713	1,252,148	1,287,560	1,288,608
1977	97.5	—	102.9	—	46	3.50	1,602,065	1,644,220	1,647,315	1,682,705	1,761,755	1,767,267
1978	64.2	—	161.0	—	51	4.50	1,765,024	1,772,364	1,792,064	1,810,389	1,870,181	1,868,754
1979	120.0	—	174.1	—	45	4.50	2,129,254	2,174,179	2,213,289	2,235,869	2,267,647	2,260,655
1980	—	—	358.5	—	43	5.02	1,880,342	1,831,172	1,757,272	1,774,742	1,817,097	1,797,543
1981	—	—	313.0	—	40	5.02	2,017,468	2,089,418	2,106,568	2,076,998	2,030,452	1,989,110
1982	—	—	254.5	—	39	5.02	2,293,420	2,313,880	2,300,345	2,299,520	2,276,976	2,190,297
1983			344.6	—		5.02	1,843,459	1,534,969	1,517,019	1,536,519	1,595,437	1,635,772
1984[1]			175.7	—		5.02	2,035,370	2,027,565	1,971,700	1,901,565	1,860,783	1,860,863
1985[1]			316.1			5.02	1,959,439	2,062,889	2,108,379	2,129,034	2,098,531	
1986[1]						5.02						

[1] Preliminary. [2] Less than 50,000 bushels. *Source: Crop Reporting Board, U.S.D.A.* T.628

Soybean Stocks in the United States In Thousands of Bushels

	On Farms				Off Farms				Total Stocks			
Year	Jan. 1	April 1	June 1[2]	Sept. 1	Jan. 1	April 1	June 1[2]	Sept. 1	Jan. 1	April 1	June 1[2]	Sept. 1
1973	429,071	145,333	33,855	9,415	437,924	358,372	145,352	50,222	866,995	503,705	179,207	59,637
1974	608,160	331,885	151,104	64,545	552,756	405,943	190,865	106,337	1,160,916	737,828	341,969	170,882
1975	483,869	331,241	165,324	75,114	505,392	323,317	191,704	109,922	989,261	654,558	357,028	185,036
1976	590,466	411,366	253,963	86,150	665,689	456,283	300,938	158,781	1,256,155	867,649	554,901	244,931
1977	473,120	227,723	92,374	32,748	559,045	390,214	243,335	70,168	1,032,165	617,937	335,709	102,916
1978	672,861	393,684	207,102	59,000	652,400	455,448	298,815	102,044	1,325,261	849,132	505,917	161,044
1979	699,556	412,570	241,255	61,509	692,534	467,646	234,850	112,579	1,392,090	880,216	526,105	174,088
1980	890,091	600,648	396,040	128,596	877,896	580,322	378,144	229,880	1,767,987	1,180,970	774,184	358,476
1981	732,384	527,222	363,317	153,571	792,792	493,892	317,603	159,436	1,525,176	1,021,114	680,920	313,007
1982	882,826	565,792	354,097	117,749	727,478	460,128	292,268	136,732	1,610,304	1,025,920	646,365	254,481
1983	1,008,139	643,134	424,658	118,574	754,560	504,529	365,966	226,060	1,762,699	1,147,663	790,624	344,634
1984	620,171	374,237	179,601	67,912	670,384	415,765	292,085	107,784	1,290,555	790,002	471,686	175,696
1985[1]	766,335	487,369	326,596	143,221	655,724	408,632	281,821	172,836	1,422,059	896,001	608,417	316,057
1986[1]	927,395				836,828					1,764,223		

[1] Preliminary. [2] Data prior to 1976 are AS OF JULY 1. *Source: Crop Reporting Board, U.S.D.A.* T.629

U.S. Commercial Stocks of Soybeans on the First of the Month In Millions of Bushels

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1973	39.1	32.0	56.8	59.7	48.9	31.8	22.8	16.6	12.1	10.5	30.4	35.6
1974	33.6	32.0	35.3	36.2	27.3	21.2	21.2	20.3	18.0	14.3	51.6	55.4
1975	48.1	43.3	40.5	31.1	18.0	12.8	16.6	13.0	12.6	14.2	60.2	62.5
1976	52.0	55.7	57.1	51.7	42.5	37.0	32.5	30.4	21.3	27.9	54.4	52.2
1977	46.8	49.5	51.1	52.3	55.4	50.0	38.7	19.6	8.5	10.9	43.6	50.9
1978	46.2	44.3	41.8	49.1	47.9	42.7	30.6	23.0	10.7	13.0	58.3	63.2
1979	60.9	57.6	62.0	60.8	52.5	40.7	37.6	31.2	19.3	11.5	77.6	84.9
1980	76.5	71.5	73.2	72.3	56.5	52.6	53.2	51.8	44.8	51.5	80.6	79.5
1981	73.1	71.1	69.0	53.1	45.3	35.7	24.7	19.0	11.2	12.6	40.7	51.7
1982	50.6	50.4	41.1	39.9	34.7	67.4	21.5	18.4	11.5	12.8	43.9	53.5
1983	53.6	58.2	57.5	55.7	55.9	44.7	34.9	35.8	42.5	47.0	78.8	83.0
1984	77.2	74.4	65.2	58.6	49.2	41.1	35.4	20.8	7.9	6.7	23.3	41.7
1985	41.1	44.0	38.2	33.3	22.8	14.7	12.7	11.3	6.9	9.6	47.6	60.9
1986	61.7	63.9	57.3	53.6								

Source: Foreign Agricultural Service, U.S.D.A. T.630

Salient Statistics of Soybeans in the United States

Crop Year	Planted Alone	Acreage Harvested	Yield Per Acre (Bus.)	Farm Price ($ Bu.)	Farm Value (Million Dollars)	Pounds Per Bushel Crushed		U.S. Exports of Soybeans Crop Year (Sept.-Aug.) (Ths. Metric Tons[2])									
	— 1,000 Acres —					Yield of Oil	Yield of Meal	Grand Total	Bel.-Luxem.	Spain	Canada	W. Germany	Japan	Netherlands	Taiwan	U.S.S.R.
1973-4	56,675	55,667	27.8	5.68	8,790	10.76	47.18	539.1	13.2		37.9	72.9	98.8	101.1	20.5	.7
1974-5	53,507	51,341	23.7	6.64	8,079	10.51	47.48	420.7	5.6		26.9	51.0	96.9	77.7	24.4	0
1975-6	54,550	53,617	28.9	4.92	7,622	10.94	47.27	555.1	17.7		28.0	45.6	118.1	130.5	32.8	11.4
1976-7[2]	50,226	49,401	26.1	6.81	8,776	11.09	47.81	15,351	411	1,030	462	1,520	3,219	3,007	697	825
1977-8	58,760	57,830	30.6	5.88	10,383	10.39	47.34	19,061	475	1,532	264	1,521	3,636	4,086	854	744
1978-9	64,708	63,663	29.4	6.66	12,450	11.07	47.63	20,117	420	1,475	352	1,486	3,865	4,012	1,271	1,178
1979-0	71,632	70,343	32.1	6.28	14,250	10.74	48.01	23,818	584	2,203	392	1,318	3,868	6,035	780	813
1980-1	70,037	67,813	26.5	7.57	13,560	11.09	47.93	19,712	670	1,383	345	1,791	3,816	3,839	1,063	
1981-2	67,810	66,163	30.1	6.04	12,071	10.72	47.86	25,285	1,404	3,855	310	2,135	4,196	5,349	1,059	683
1982-3	70,884	69,442	31.5	5.65	12,594	10.76	47.88	24,634	1,259	2,313	324	1,813	4,580	4,648	1,300	199
1983-4	63,779	62,525	26.2	7.81	12,776	11.26	47.36	20,215	882	1,800	248	967	4,394	2,988	1,382	408
1984-5[1]	67,755	66,113	28.1	5.85	10,886	11.05	47.15	16,279	658	1,084	140	718	3,828	2,857	1,389	—
1985-6[1]	63,130	61,584	34.1	5.20	10,912			20,956								
1986-7[3]	62,045															

[1] Preliminary. [2] Data prior to 1976–7 are in MILLIONS OF BUSHELS. [3] Forecast. *Source: Crop Reporting Board, U.S.D.A.*

T.631

Supply and Distribution of Soybeans in the United States In Millions of Bushels

Crop Year Begin Sept. 1	Supply					Distribution					
	Stocks, Sept. 1										
	Farms	Mills, Elevators[2]	Total	Production	Total Supply	Crushings	Exports	Seed	Feed	Residual	Total Distribution
1973-4	9.4	50.2	59.6	1,547.5	1,607.1	821.3	539.1	56.1	1.2	18.7	1,436.4
1974-5	64.5	106.3	170.9	1,216.3	1,387.2	701.3	420.7	57.2	1.0	21.7	1,198.9
1975-6	75.1	109.9	188.2	1,548.3	1,736.5	865.1	555.1	53.5	1.2	15.7	1,490.6
1976-7	86.2	158.8	244.9	1,288.6	1,533.5	790.2	564.1	61.0	1.0	13.3	1,429.6
1977-8	32.7	70.2	102.9	1,767.3	1,870.2	926.7	700.5	68.0	1.0	13.0	1,703.6
1978-9	59.0	102.0	161.0	1,868.8	2,029.8	1,018	739.0	75.0	1.0	23.0	1,856.0
1979-0	61.5	112.6	174.1	2,260.7	2,437	1,123	875.0	81			2,079
1980-1	128.6	229.9	358.5	1,797.5	2,156	1,020	724.0	99			1,843
1981-2	153.6	159.4	313.0	1,989.1	2,302	1,030	929.0	89			2,048
1982-3	117.7	136.7	254.5	2,190.3	2,444	1,108	905	86			2,099
1983-4	118.6	226.1	344.6	1,635.8	1,981	983	743	79			1,805
1984-5[1]	67.9	107.8	175.7	1,860.9	2,037	1,030	598	93			1,721
1985-6[3]	143.2	172.8	316.1	2,098.5	2,415	1,060	750	85			1,895
1986-7											

[1] Preliminary. [2] Also warehouses. [3] Estimates. *Source: Economic Research Service, U.S.D.A.*

T.632

Production of Soybeans for Beans in the U.S., by Selected States In Millions of Bushels

Year	Ark.	So. Car.	Ill.	Ind.	Iowa	La.	Mich.	Minn.	Miss.	Mo.	N. Car.	Ohio	Tenn.	Nebr.	Ky.
1973	116.3	23.0	281.3	135.1	263.5	34.8	16.6	127.3	60.5	126.9	34.8	89.8	36.9	36.3	26.0
1974	81.7	24.0	202.6	97.3	199.1	44.0	13.2	84.0	46.3	93.5	30.5	79.8	31.9	28.2	25.0
1975	117.5	30.4	299.5	121.6	237.0	48.0	15.9	98.6	70.2	113.6	33.4	102.3	46.3	32.4	29.7
1976	82.1	21.4	249.5	111.5	200.0	63.0	11.6	66.4	71.5	84.0	24.6	95.0	40.5	19.6	28.9
1977	105.8	26.7	336.3	144.3	251.3	63.0	21.6	133.8	78.5	148.8	29.0	120.0	52.2	40.7	40.9
1978	115.2	32.3	309.5	144.2	283.1	76.0	21.6	146.2	81.7	155.0	40.3	127.7	56.9	42.5	40.8
1979	144.2	39.8	379.1	159.1	306.4	93.8	30.3	162.6	118.9	183.6	45.8	144.8	70.7	54.7	54.0
1980	65.3	20.8	309.9	157.7	318.4	67.0	30.4	149.9	61.6	135.5	34.7	135.4	45.9	53.1	36.0
1981	99.0	31.0	351.5	151.8	326.0	64.2	29.1	139.2	75.6	155.6	46.3	99.8	61.1	78.7	47.9
1982	105.6	39.6	354.2	173.3	306.6	75.4	35.3	169.1	92.3	171.0	52.5	133.2	61.0	78.8	51.3
1983	70.3	23.6	267.0	122.5	278.6	68.1	33.8	151.8	58.9	103.0	33.0	105.0	31.5	59.0	24.5
1984	101.4	29.8	284.1	150.1	264.6	66.8	32.1	172.9	76.8	108.7	46.5	137.6	48.1	66.3	42.3
1985[1]	98.1	24.6	382.5	185.1	309.7	44.1	34.6	160.0	70.7	180.4	39.1	160.6	45.3	85.0	41.8

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.*

T.633

SOYBEANS

High, Low & Closing Prices of May Soybean Futures at the Chicago Board of Trade In Cents per Bushel

Year of Delivery		Year Prior to Delivery										Delivery Year					Life of Delivery Range
		Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
1980	High	744½	747	760	859	823	773	790	788	739½	726½	704	710½	669½	611	624	859
	Low	735	719½	734	749	730½	720	729½	695	702	686½	653	656½	582½	569½	589½	569½
	Close	737½	739¾	756	764	738¾	757¾	762½	709¾	723¼	687¼	695½	657½	583	594½	612	—
1981	High	741½	713½	710	750	859	855½	933	997½	1,006	1,001	882	798½	788½	812½	785	1,006
	Low	696½	681	684	680	744	783	842	847½	937	765½	735	754½	719½	757½	733	680
	Close	699	692	695¾	750	822	854½	873¼	966½	997½	843½	751½	761	783½	778½	741	—
1982	High	894	922	883	832½	853½	807	751	739	721	696¼	677	683	642	670¾	669½	922½
	Low	859	872	820	772	787	722	703½	705	670	619	637	617½	605½	639½	647	605
	Close	888½	873	829	788½	812½	730	715¼	714¼	678¼	641¼	674½	632¾	640	651¾	666	—
1983	High	713	729½	723½	704½	678½	664½	611½	588	607¾	595½	620	622	643¾	655½	643	746
	Low	667½	698	687½	670	651	593½	572½	558½	570½	576¼	577	572½	577½	620¼	610¼	558½
	Close	696	716½	687½	671	654¾	601	574¼	568¼	594	581¾	618½	575½	637	640¼	621½	—
1984	High	718	732	720	678	794	984	996	927	903½	853	825	768	815	813	894	996
	Low	645	695½	659	630	657½	760	859½	831	791	775½	738	706	762	765	768½	630
	Close	714	719	659½	660	761	930	890	851	822	843½	747½	765	789	771	888	—
1985	High	773	777	784	797	764	700	675	678	676½	640½	624	619½	614	609¾	590¾	797
	Low	753	737	744½	736	940	643½	601	623	623	597¼	581¾	572	570¾	585	568	568
	Close	768½	737	777	761	646½	675	627	659¾	634¼	599	613¼	573	605½	588	568	—
1986	High	645	650	637	616	618	560½	560½	551½	557	567	566½	545	548			
	Low	608½	631	583½	577	547	531¼	532	534¼	549	504	537	523¼	527¼			
	Close	643½	636½	590½	583	555¼	541	547½	548¾	513	554	542½	529¾	541½			
1987	High	554															
	Low	535½															
	Close	544¾															

Source: Chicago Board of Trade

T.634

Soybean Stocks at U.S. Mills on First of Month In Millions of Bushels

Crop Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1974-5	41.6	23.0	93.9	123.0	102.5	83.2	79.2	65.3	55.4	44.3	37.7	35.4
1975-6	27.4	26.8	116.6	137.2	131.5	121.1	109.8	101.3	92.8	79.4	80.5	66.3
1976-7	48.7	63.0	127.5	159.8	154.2	147.5	146.5	140.3	126.8	108.6	83.4	50.9
1977-8	23.4	20.3	101.5	123.9	113.0	94.4	87.3	102.8	90.2	76.3	54.5	44.6
1978-9	37.9	31.9	138.4	149.4	127.3	112.4	124.0	120.9	96.7	71.1	73.0	55.6
1979-0	37.5	39.2	166.5	184.5	163.3	145.4	130.7	118.6	95.8	79.7	75.7	73.9
1980-1	56.9	80.4	166.0	172.0	138.7	125.9	105.4	97.2	84.4	67.8	49.2	43.9
1981-2	33.4	31.5	105.8	135.2	114.5	99.8	84.6	79.2	72.2	60.8	51.2	43.6
1982-3	30.0	29.0	114.2	145.5	125.1	116.2	98.5	96.2	84.6	69.8	62.0	55.4
1983-4	58.6	63.9	124.5	142.3	124.0	125.3	114.8	105.3	94.2	101.7	83.4	57.7
1984-5	35.3	19.7	53.9	116.4	98.4	85.9	65.8	69.7	65.2	53.4	47.6	36.0
1985-6	26.7	25.7	92.8	113.4	119.9	124.6	974.5					

Sources: Economic Research Service, U.S.D.A.

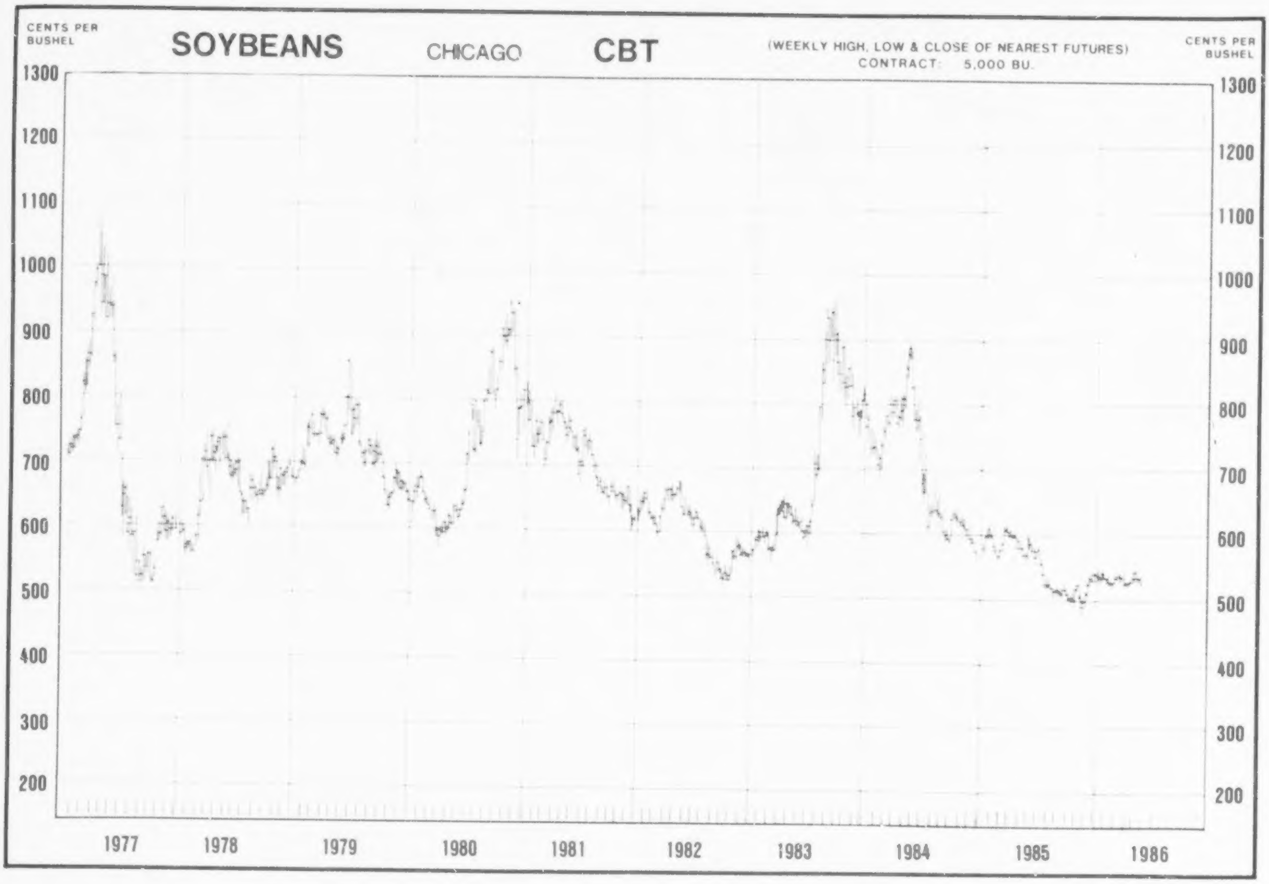
T.635

Soybean Exports from the United States In Millions of Bushels

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Total
1974-5	22.9	32.2	63.2	41.4	50.0	33.3	38.4	35.8	25.1	14.0	31.0	33.4	420.7
1975-6	24.3	62.7	61.5	49.6	51.8	52.2	52.3	50.5	49.5	47.2	29.2	24.3	555.1
1976-7	22.2	60.1	67.4	56.7	50.9	59.9	58.4	57.0	55.1	31.0	27.2	18.1	564.1
1977-8	15.0	77.6	87.7	57.0	52.6	54.4	66.6	72.7	79.3	63.4	34.7	39.3	700.5
1978-9	38.0	87.6	101.7	70.6	77.0	53.2	83.5	67.7	46.8	40.9	32.7	39.7	739.2
1979-0	40.9	88.9	118.1	78.3	85.8	73.0	69.4	81.3	74.2	58.7	49.1	57.7	875.2
1980-1	41.4	60.3	75.0	74.5	71.7	55.5	103.2	60.0	69.6	41.8	29.6	41.8	724.3
1981-2	50.9	100.8	103.7	73.6	84.3	89.4	79.0	85.7	90.6	59.8	53.8	57.5	929.1
1982-3	58.0	94.4	93.6	90.1	86.3	87.2	84.4	73.3	58.5	67.7	51.6	60.2	905.2
1983-4	53.9	67.6	69.2	74.5	80.4	79.7	78.8	68.5	56.8	41.1	39.2	30.7	686.6
1984-5[1]	19.0	40.9	93.5	87.3	70.3	72.6	59.8	60.4	33.1	18.2	19.2	26.3	600.7
1985-6[1]	31.5	55.4	79.6	94.1									

[1] Preliminary. *Source: Bureau of the Census*

T.636



Month End Open Interest of Soybean Futures at Chicago Board of Trade In Millions of Bushels

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1978	470.3	438.0	499.4	483.9	553.5	491.8	452.8	485.8	562.2	726.6	720.1	775.1
1979	613.9	719.0	642.0	576.1	562.2	584.4	514.4	477.1	534.9	564.7	630.4	704.3
1980	533.2	540.0	502.2	449.6	513.5	615.0	703.5	784.4	880.4	1,069.6	1,102.7	1,056.4
1981	645.7	586.9	565.0	551.4	523.3	513.6	470.3	455.7	449.1	523.2	491.4	426.6
1982	400.8	391.6	435.2	422.1	399.1	377.0	400.2	353.7	357.7	422.9	433.3	424.7
1983	465.3	413.9	485.7	507.5	428.5	401.2	547.5	714.3	745.7	684.1	648.2	603.2
1984	548.3	548.9	556.2	494.5	577.1	428.7	316.2	275.1	287.0	339.4	351.2	343.2
1985	359.5	359.2	327.9	311.9	320.2	321.5	329.9	331.6	307.9	390.1	370.5	386.4
1986	373.3	376.5	385.4									

Source: Chicago Board of Trade

T 642

SOYBEANS

Volume of Trading in Soybean Futures at the Chicago Board of Trade In Millions of Bushels

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1978	2,978	2,224	5,057	4, 121	3,820	3,742	2,662	2,965	2,561	4,754	3,992	3,511	42,386
1979	3,701	5,038	4,123	3,856	3,686	5,485	4,184	2,843	2,920	3,946	3,115	2,674	45,572
1980	3,222	2,916	2,808	3,035	2,911	3,602	6,803	5,226	6,562	7,706	7,025	7,024	58,841
1981	5,808	4,074	4,796	4,585	3,917	4,737	4,821	3,897	3,626	4,087	3,765	4,337	52,450
1982	3,120	3,497	4,478	4,484	3,517	4,245	4,017	3,822	3,197	4,014	4,282	3,198	45,828
1983	3,942	3,820	4,247	4,375	4,259	4,409	6,224	8,799	7,852	8,071	6,793	5,609	68,402
1984	5,550	5,247	6,008	4,945	7,300	6,323	5,314	4,045	2,505	3,687	3,427	2,463	56,813
1985	3,315	2,749	2,657	2,821	2,766	3,309	3,779	2,581	2,525	3,364	3,881	3,213	36,961
1986	3,692	2,484	2,435										

Source: Commodity Futures Trading Commission T.638

Soybeans Under Price Support Through the End of the Month (Cumulative Total from Current Season's Crop) In Thousands of Bushels

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Total
1976–7	270	3,398	8,471	13,398	14,966	15,253	15,433	22,450	22,491	22,491	—	—	
1977–8	360	13,135	47,879	68,269	89,128	93,293	96,234	96,808	97,048	97,146	—	—	
1978–9	0	6,403	31,008	43,015	58,278	61,489	62,365	63,146	63,508	65,087	—	—	
1979–0	11	9,507	39,559	67,372	101,052	106,135	113,638	119,860	121,684	122,013	—	—	
1980–1	22	11,705	28,541	67,744	100,809	116,167	125,480	130,236	132,346	133,160	—	—	
1981–2	1,044	26,019	81,377	138,202	191,386	208,285	216,412	219,743	144,165	221,303			
1982–3	861	50,145	203,031	311,105	363,696	382,536	391,432	393,567	394,727	395,893			
1983–4	0	9,098	32,869	62,736	84,526	92,974	98,945	100,030	100,656	100,817			
1984–5	0	46,349	99,437	174,002	242,526	258,174	268,812	271,353	274,051	275,687			
1985–6	1,056	86,633	265,929	408,793	482,658								

Source: U.S. Department of Agriculture T.639

Soybeans Crushed (Factory Consumption) in the U.S. In Millions of Bushels—One Bushel = 60 Pounds

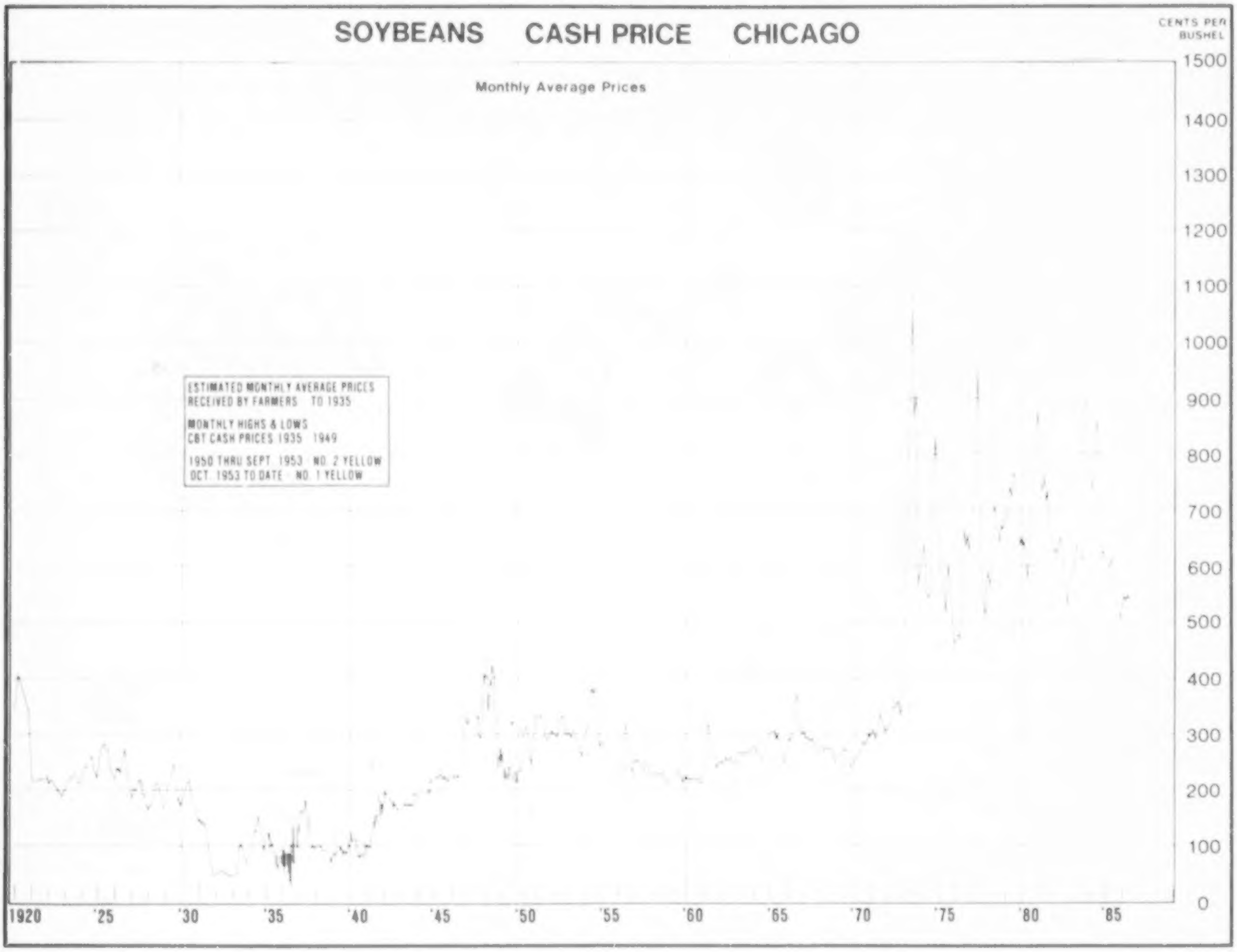
Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Total
1976–7	68.8	72.9	73.4	72.7	72.2	71.6	74.4	67.1	61.2	56.2	50.6	49.1	790.2
1977–8	51.9	75.8	85.3	86.6	85.3	75.4	86.5	80.1	82.7	72.4	70.8	73.9	926.7
1978–9	71.4	89.3	89.6	96.4	90.6	81.5	89.0	83.3	86.9	82.8	80.6	76.4	1,018
1979–0	75.9	95.8	101.4	104.4	106.6	100.0	102.2	92.0	93.8	82.7	84.9	83.7	1,123
1980–1	81.0	97.8	98.5	94.1	92.2	79.6	88.7	85.4	82.3	73.4	72.3	74.6	1,020
1981–2	75.4	104.5	97.6	102.5	94.9	86.7	85.1	81.0	86.6	77.1	70.6	67.8	1,030
1982–3	76.0	100.2	108.1	111.9	110.0	93.0	94,6	81.8	83.7	81.5	81.6	85.7	1,108
1983–4[1]	86.6	96.4	86.6	89.4	93.8	79.2	86.0	74.6	79.4	70.6	69.0	71.1	982.7
1984–5[1]	65.5	89.2	98.9	101.0	94.5	80.8	85.6	83.2	89.3	82.7	82.0	77.5	1,030
1985–6[1]	76.5	94.3	96.7	100.8	99.6	81.4							

[1] Preliminary. *Source: Bureau of the Census* T.641

Average Price Received by Farmers for Soybeans in the U.S. In Cents Per Bushel

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
1976–77	665	590	611	656	681	706	783	905	924	813	652	548	681
1977–78	517	528	561	568	575	553	620	649	477	669	640	621	588
1978–79	620	626	641	649	658	699	716	706	706	736	736	707	666
1979–80	681	635	630	627	639	620	594	563	576	591	675	718	628
1980–81	759	768	818	780	780	750	759	760	740	705	713	671	757
1981–82	621	606	603	600	613	604	604	617	627	612	599	559	604
1982–83	522	506	534	546	556	566	582	609	606	590	627	757	565
1983–84	828	796	780	774	785	728	768	783	812	799	695	650	781
1984–5	609	608	602	582	591	577	588	588	570	562	542	510	585
1985–6	499	485	492	500	516	518	522						

Source: Crop Reporting Board T.637



Average Cash Price of No. 1 Yellow Soybeans at Illinois Processor In Cents per Bushel

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average
1976-7	622	655	686	706	726	825	960	942	825	640	549	516	721
1977-8	507	584	594	573	565	658	681	701	676	662	647	642	624
1978-9	672	668	681	689	728	745	727	721	768	764	728	704	716
1979-0	656	652	653	636	642	607	580	604	610	722	745	813	660
1980-1	827	891	773	757	734	737	772	758	713	736	694	644	753
1981-2	630	628	623	630	624	616	642	656	631	620	573	540	618
1982-3	526	570	573	581	586	598	635	627	606	659	846	893	640
1983-4	846	820	777	767	737	797	798	861	791	685	663	621	764
1984-5	627	625	607	604	597	608	613	595	588	565	528	519	598
1985-6	505	519	532	545	538								

Source: Agricultural Marketing Service, U.S.D.A. T.643

Stock Index Futures

Propelled by a boom in stocks that carried the Dow-Jones industrial average from under 1200 in January 1985 to nearly 1535 at the year's end, trading volume in stock-index futures hit a total of about 19 million for the year. By comparison, total volume in stock-index futures contracts during 1984 was roughly 17 million. The leading contract by a wide margin was the S&P 500, traded on the Chicago Mercantile Exchange: volume in that instrument during 1985 was over 15 million, as against 12.4 million the year before. Trading volume in the New York Stock Exchange Composite Index contract, which is listed on the New York Futures Exchange, came to 2.8 million in 1985, down from 3.5 million during 1984. At the Kansas City Board of Trade the Value Line index futures contract had a volume for the year of 1.2 million, as against 911,000 the previous year.

A number of factors underlay the sharp rise in stock prices and concomitant heavy trading of stock-index futures during 1985. Chief among those factors was a steep downtrend in interest rates, which made securities a much more attractive form of investment than they were when intermediate- and long-term interest rates were in double digits. The strong uptrend in securities prices was mirrored in stock indices, so traders of index futures—and particularly the trend-followers—also were very active. Other factors which influenced strength in stock indices futures in 1985 included: an easier monetary policy; an accord by the major central banks to lower the dollar's value; congressional efforts to curtail the federal deficit; and a series of corporate mergers (or takeovers) that tended to fuel positive market psychology and maintain strong institutional participation in the equities markets.

Almost, if not just as important in explaining the rising volume of trading in stock-index futures contracts was rapidly widening usage of those contracts by institutional money managers, seeking either to hedge their portfolios of equities or to do arbitrage between the stock market and the stock-index futures markets. The mechanism for either or both of these maneuvers is known widely as program trading. The latter, not so incidentally, is being credited (or blamed) for the increasing daily and weekly volatility of stock-price indices.

A further increase in overall trading volume of stock-index futures contracts is predicted in 1986, given the widespread expectation that interest rates are unlikely to rise and may fall below their year-end level in 1985; and given the spreading practice of trading the contracts by institutional money managers, such as banks, insurance companies and pension funds. The S&P 500 is the odds-on favorite to continue holding its huge lead over competing index futures contracts, but each of its competitors is known to be planning major marketing efforts on its own behalf. Whether the speculative traders in stock-index futures contracts will increase their aggregate volume of trading will depend heavily upon the presence or absence of strong upward or downward price trends. Absent that kind of price movement, speculative trading of index futures is likely to wane.

Month End Open Interest of NYSE Composite Stock Index Futures at New York in Contracts

Year	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1982	—	—	—	—	4,024	4,384	4,646	4,690	5,722	5,459	7,753	5,273
1983	6,841	10,781	6,583	9,120	10,426	9,397	11,354	10,032	8,066	10,303	9,461	8,539
1984	9,348	9,874	8,571	8,454	9,376	7,957	7,918	10,968	9,710	9,181	7,745	7,149
1985	11,062	10,884	9,804	9,438	13,672	9,677	12,102	10,388	7,218	7,011	8,131	9,381
1986	10,164	13,992	15,320									

Source: New York Futures Exchange T.643E

Month End Open Interest of KC Value Line Stock Index Futures at Kansas City in Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1982	—	1,402	3,679	3,176	3,803	4,250	5,065	5,858	3,456	3,235	3,094	2,777
1983	3,292	3,942	2,879	2,948	4,482	4,487	4,408	3,654	3,381	3,476	3,924	4,498
1984	4,019	5,032	3,241	3,235	3,669	3,041	3,811	5,305	3,000	4,195	5,244	3,888
1985	7,563	7,332	5,741	6,197	8,634	6,556	11,707	10,695	7,576	7,765	11,926	16,844
1986	16,536	19,310	15,129									

Source: Kansas City Board of Trade T.643F

Month End Open Interest of Maxi[1] Major Market Stock Index Futures at Chicago (CBT) in Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1984		Futures Trading Began July 23, 1984					5,423	5,846	7,610	11,594	14,211	13,515
1985	17,427	12,779	14,688	14,577	9,328	5,660	9,247	3,884	5,000	3,923	7,169[1]	3,453
1986	5,791	7,694	7,470									

[1] Data prior to Nov. 1985 are for the major market index. (Not the maxi.) *Source: Chicago Board of Trade* T.643H

High, Low & Closing Prices of the December S&P 500 Stock Index Futures at Chi. IOM

Year of Delivery		Yr. Prior to Del.	Delivery Year												Life of Delivery Range
		Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	
1982	High	Futures Trading				124.20	121.90	113.85	115.90	120.30	127.65	143.00	146.80	145.70	146.80
	Low	Began				117.80	111.80	104.35	106.80	101.40	116.95	118.55	131.40	134.75	101.40
	Close	April 21, 1982				120.60	112.05	111.85	107.90	119.45	119.35	134.55	138.65	135.30	—
1983	High	147.20	152.60	156.50	158.00	166.70	170.70	175.05	173.70	167.50	172.60	174.25	169.70	167.55	175.05
	Low	138.00	140.60	144.75	151.10	151.90	162.50	161.90	168.85	160.65	165.50	164.15	164.20	161.75	138.0
	Close	143.00	149.20	152.40	154.05	166.40	164.30	171.35	165.00	165.95	168.25	165.45	166.50	161.75	—
1984	High	175.00	177.30	171.50	166.75	166.20	167.70	160.55	158.90	173.95	174.60	174.40	172.90	169.50	179.20
	Low	169.95	170.65	158.60	154.60	159.70	153.90	153.95	150.70	155.40	166.30	162.75	163.90	161.55	150.70
	Close	173.85	171.00	162.50	165.35	166.00	155.60	157.35	154.90	170.20	170.10	168.60	164.55	165.51	—
1985	High	181.05	191.25	194.90	196.50	191.90	198.00	199.10	200.85	195.75	191.40	190.45	204.50	213.85	213.85
	Low	178.40	175.40	188.75	187.00	186.20	185.35	191.55	192.20	188.75	180.65	182.10	189.10	200.40	175.40
	Close	178.40	189.75	193.55	190.20	187.20	186.40	196.65	193.85	189.90	182.80	189.25	202.40	210.90	—
1986	High	220.90	223.30	237.20	249.50										
	Low	215.70	209.50	218.00	230.20										
	Close	219.30	220.50	234.90	247.30										

High, Low & Closing Prices of the December NYSE Composite Stock Index Futures at New York

Year of Delivery		Yr. Prior to Delivery		Delivery Year												Life of Delivery Range
		Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	
1982	High	Futures Trading						70.55	65.35	66.85	69.10	73.50	82.10	84.45	83.95	84.45
	Low	Began						64.65	60.20	61.45	58.10	67.20	68.15	76.10	77.70	58.10
	Close	May 6, 1982						64.60	64.30	62.05	68.45	68.45	77.55	81.65	81.30	—
1983	High	85.70	85.35	88.20	90.25	91.00	95.90	98.25	101.45	100.75	96.80	99.85	100.50	97.75	96.90	101.45
	Low	78.80	80.20	81.50	83.80	87.00	87.65	93.65	94.30	95.00	92.70	95.50	94.65	94.10	93.80	60.25
	Close	84.00	83.30	86.70	88.05	88.65	95.75	95.65	99.35	95.55	95.80	97.30	95.45	96.30	94.95	—
1984	High	102.25	101.15	102.65	99.30	95.90	95.45	96.20	92.55	91.50	100.40	100.85	100.90	9.85	97.90	103.55
	Low	98.25	98.50	98.70	91.00	91.90	91.80	88.55	88.80	86.70	89.35	95.85	93.80	94.45	93.20	86.70
	Close	100.95	99.85	99.00	93.90	95.15	95.35	89.55	90.70	89.00	98.30	98.05	97.40	94.90	95.56	—
1985	High	—	104.15	110.90	112.95	113.75	111.55	115.15	115.50	117.20	115.45	111.05	110.05	117.95	123.25	123.25
	Low	—	103.20	101.20	109.60	108.55	108.05	107.60	111.80	111.55	109.60	104.45	105.15	109.20	115.65	101.20
	Close	—	103.55	110.25	112.25	110.85	108.70	114.30	114.40	112.55	110.20	105.70	109.35	116.75	121.30	—
1986	High	—	127.05	129.10	136.30	144.20										
	Low	—	124.85	121.00	126.90	133.55										
	Close	—	126.45	127.15	134.90	142.60										

High, Low & Closing Prices of the December Value Line Stock Index Futures at K.C. Board of Trade

Year of Delivery		Yr. Prior to Delivery		Delivery Year												Life of Delivery Range
		Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct	Nov.	Dec.	
1982	High	Futures Trading			137.00	132.50	136.00	134.70	123.50	124.25	130.65	137.65	154.70	164.95	164.70	164.95
	Low	Began			129.90	117.00	125.30	122.10	112.70	115.20	109.90	127.40	128.50	146.80	151.90	109.90
	Close	Feb. 24, 1982			130.10	125.20	133.60	122.65	119.35	116.55	130.00	129.40	147.00	159.15	158.94	—
1983	High	165.65	168.50	175.50	181.00	184.25	192.80	204.80	213.35	211.70	200.90	206.45	205.60	201.30	199.05	213.35
	Low	150.30	155.55	160.80	168.10	177.20	178.20	189.65	199.50	199.75	192.25	196.70	189.25	189.30	192.45	111.40
	Close	161.55	163.20	172.65	177.20	180.60	192.60	200.60	209.95	201.15	197.80	200.25	190.75	197.85	194.05	—
1984	High	—	—	210.80	200.60	191.95	188.20	189.00	180.35	177.70	191.50	193.40	191.70	188.15	180.95	210.80
	Low	—	—	201.00	184.00	185.60	181.35	173.00	174.60	164.45	170.00	183.50	179.05	175.60	172.65	164.45
	Close	—	—	201.00	187.60	188.85	186.25	175.15	177.30	169.40	188.75	187.60	183.75	175.90	177.98	—
1985	High	—	—	—	211.55	215.45	209.15	213.00	210.50	217.05	209.80	202.60	196.00	209.70	216.65	216.65
	Low	—	—	—	209.50	204.70	201.80	200.30	202.00	205.20	200.80	188.80	188.60	194.60	205.30	188.60
	Close	—	—	—	211.40	207.30	201.80	209.10	207.70	206.95	202.20	190.20	194.85	207.55	213.70	—
1986	High	—	226.25	228.35	235.30	250.00										
	Low	—	219.00	217.50	224.20	235.20										
	Close	—	222.00	223.65	235.30	246.90										

STOCK INDEX FUTURES

High, Low & Closing Prices of the September Major Market Stock Index Futures at Chicago BOT

Year of Delivery		Delivery Year Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Life of Delivery Range
1984	High			Futures Trading				222⅛	247	245⅞	247
	Low			Began July 23, 1984				215	222¼	234⅞	215
	Close							221⅞	241⅜	235½	—
1985	High	—	—	264⅞	264	265	266⅝	267½	265½	259	267½
	Low	—	—	259	255¼	251⅝	257¾	261¼	255½	248⅞	248⅞
	Close	—	—	262¼	256¼	264¼	263¼	264¼	256¾	250½	—
1986	High	287.00	320.00	350.00							
	Low	272.60	297.00	272.60							
	Close	272.60	320.00	350.00							

[1] Prices are for *Maxi* major market.

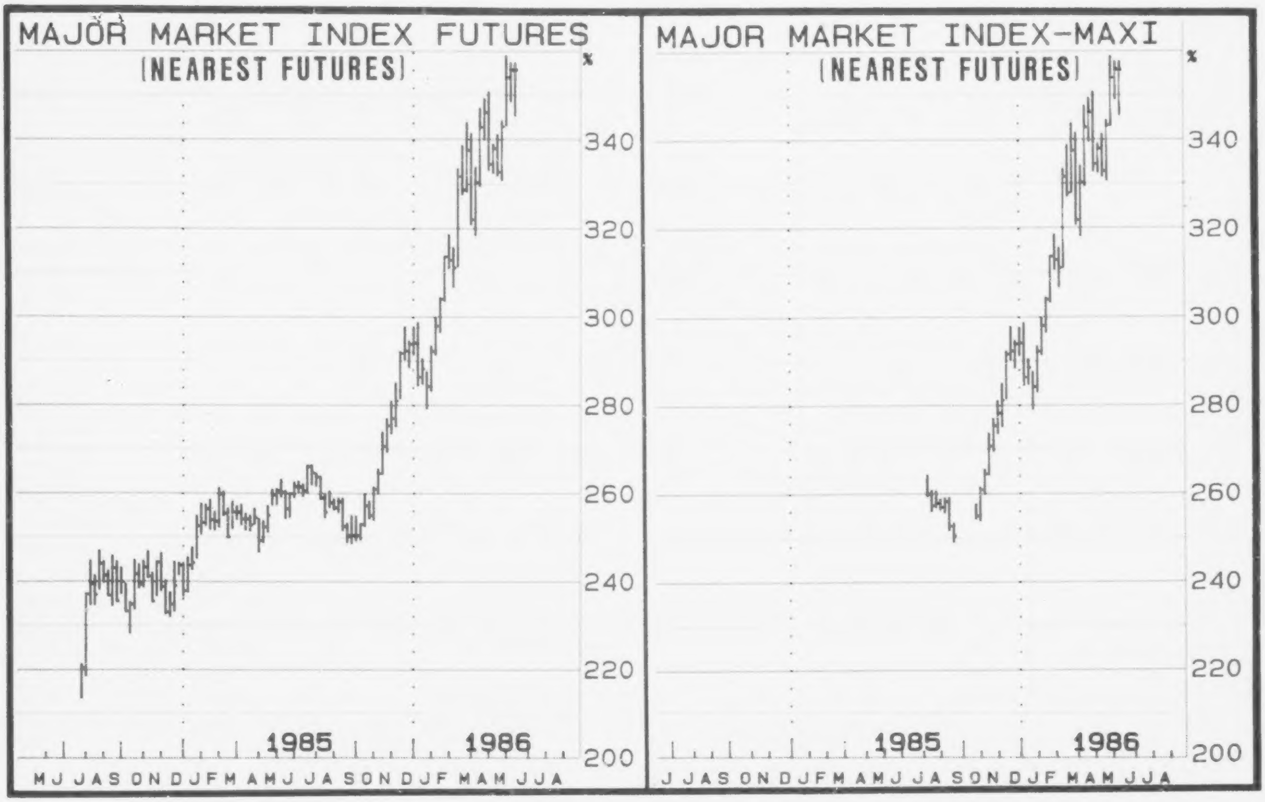
T.643G

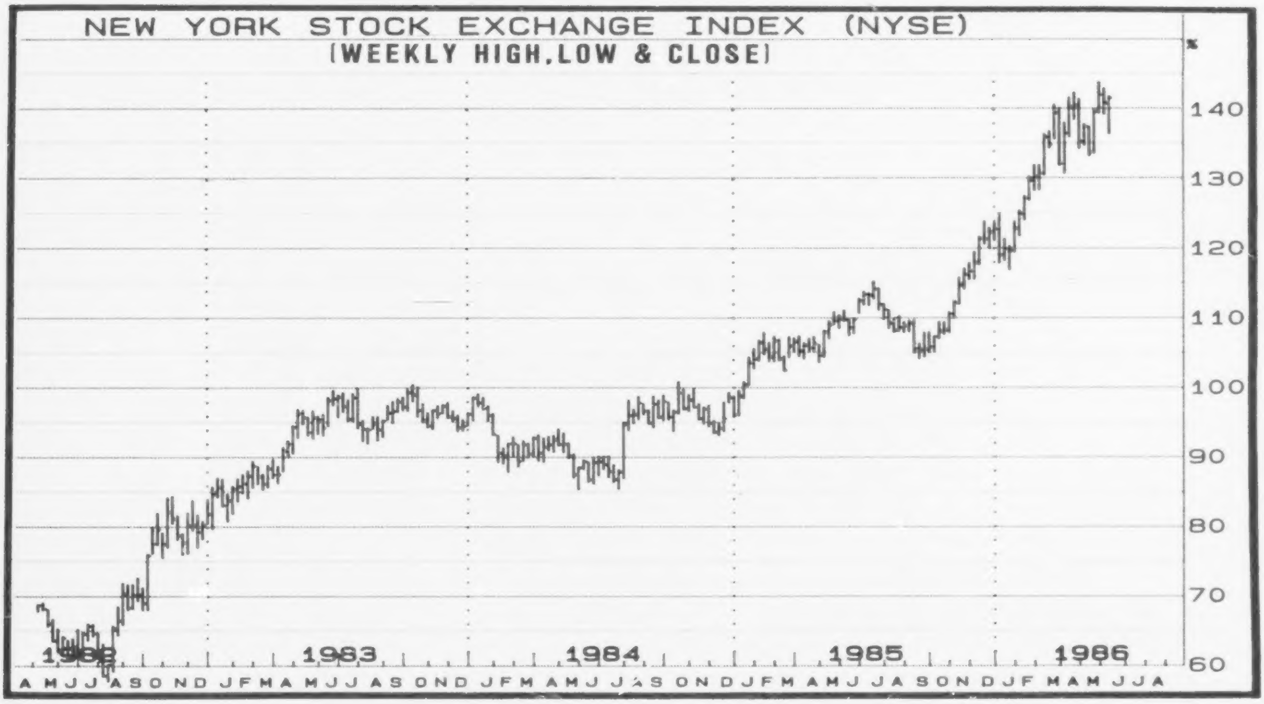
Month End Open Interest of S&P 500 Stock Index Futures at Chicago IOM in Contracts

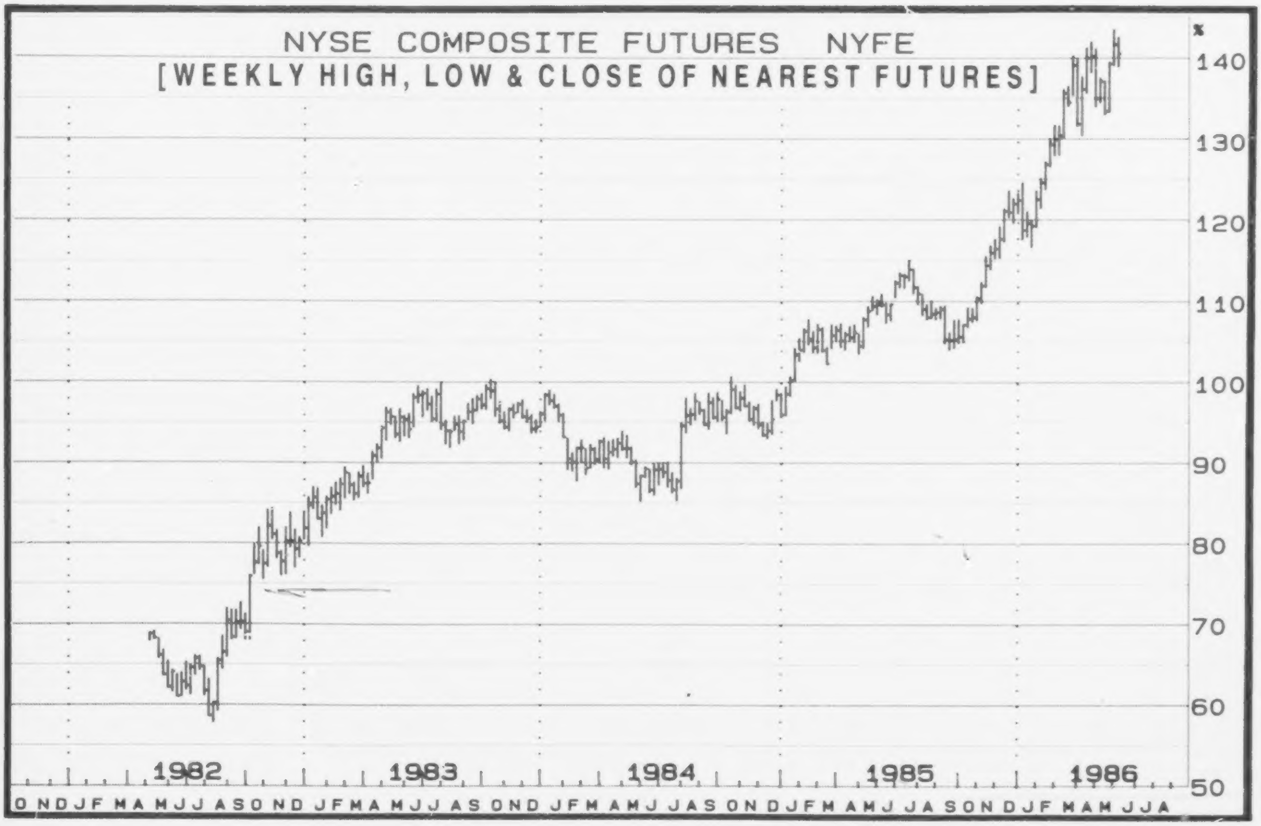
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1982	—	—	—	1,613	6,780	9,603	15,482	13,840	12,901	12,625	16,601	11,681
1983	15,748	22,841	17,766	25,556	30,796	25,013	28,616	29,747	24,129	29,329	27,967	25,349
1984	34,012	38,441	27,931	33,389	34,200	28,395	33,971	31,973	31,610	46,104	53,530	42,191
1985	58,332	62,142	57,664	58,131	72,642	58,890	60,612	60,718	53,629	65,568	74,909	62,879
1986	74,462	94,466	70,102									

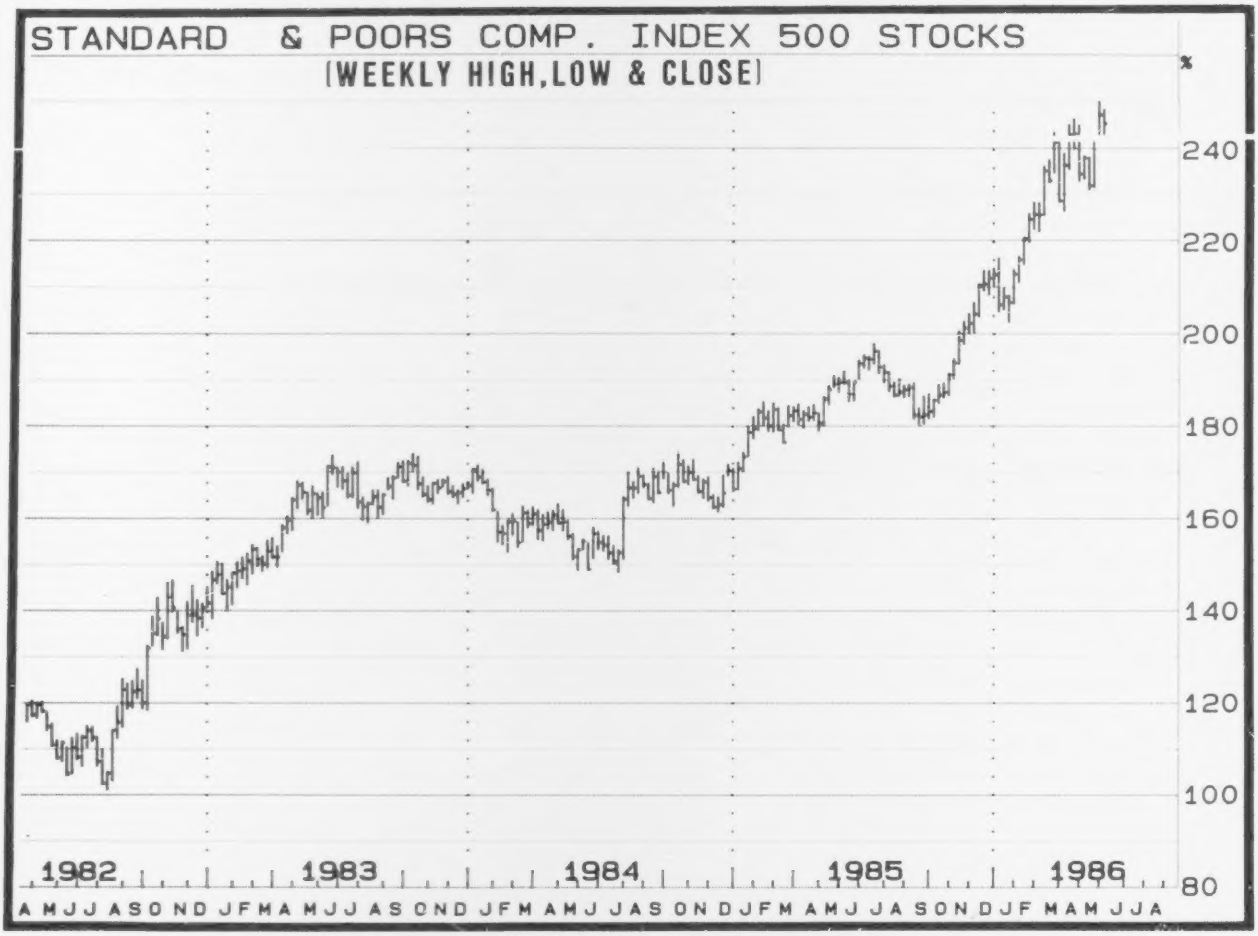
Source: Chicago International Monetary Market

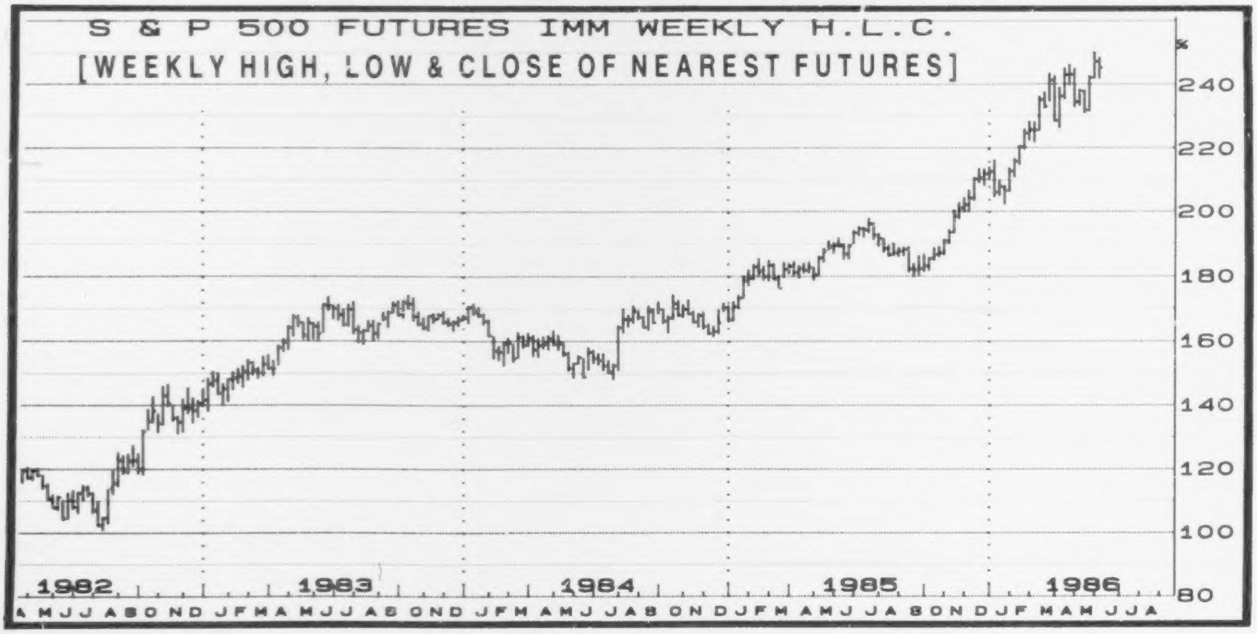
T.643D

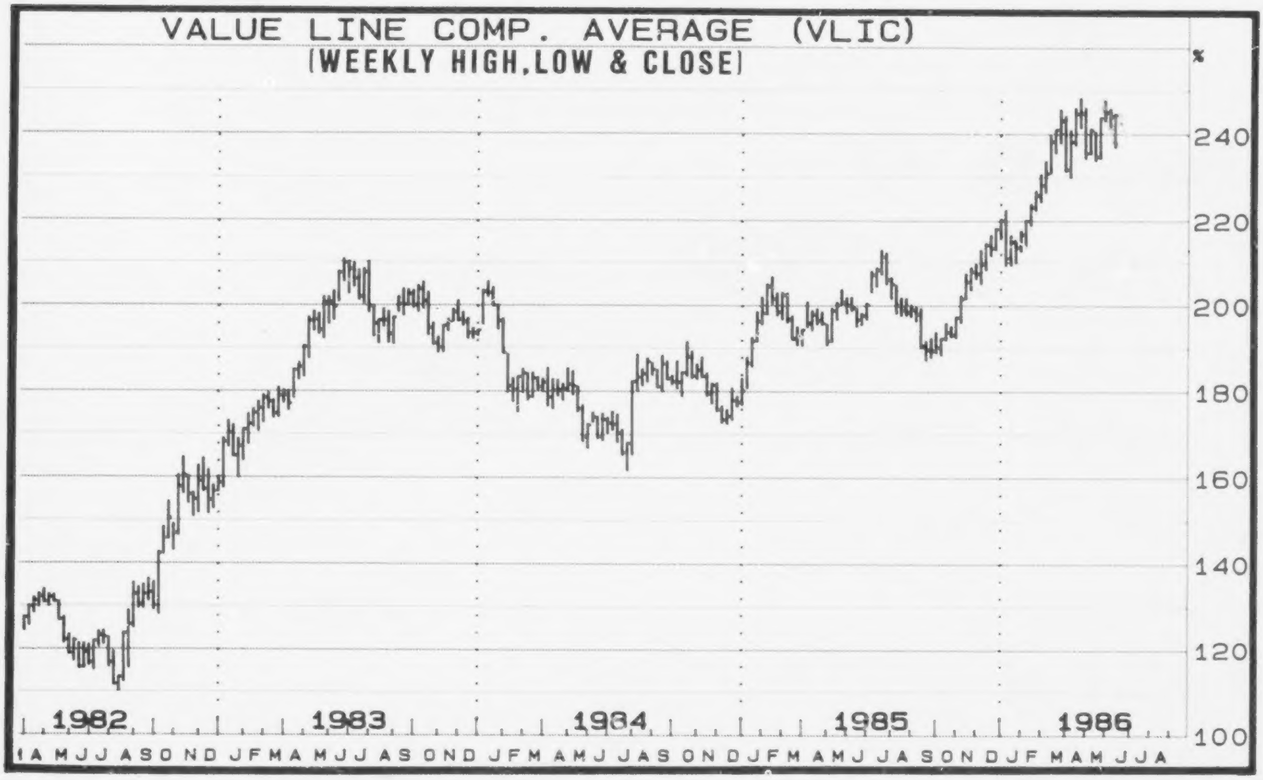


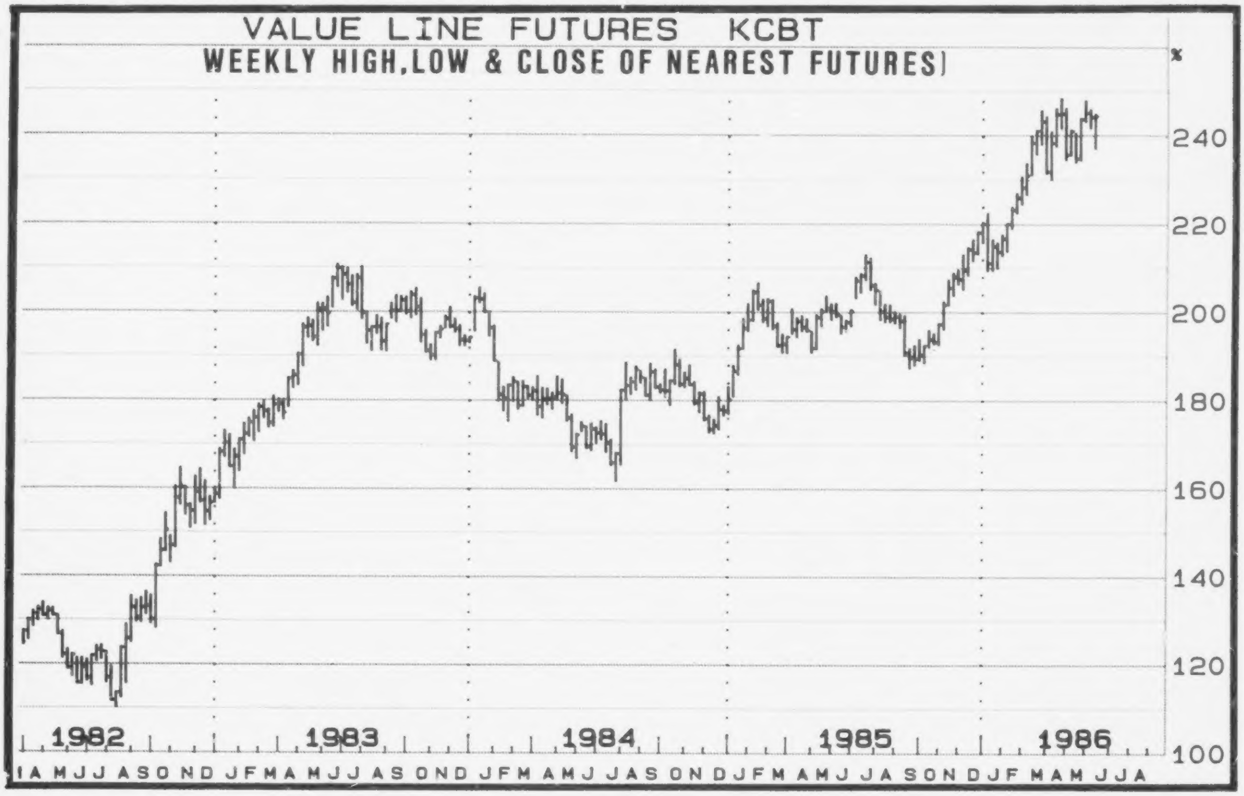

NEW YORK STOCK EXCHANGE INDEX (NYSE)
(WEEKLY HIGH, LOW & CLOSE)
140
130
120
110
100
90
80
70
60
1982
1983
1984
1985
1986
A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A


NYSE COMPOSITE FUTURES NYFE
[WEEKLY HIGH, LOW & CLOSE OF NEAREST FUTURES]
140
130
120
110
100
90
80
70
60
50
1982
1983
1984
1985
1986
O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A


STANDARD & POORS COMP. INDEX 500 STOCKS
(WEEKLY HIGH, LOW & CLOSE)
%
240
220
200
180
160
140
120
100
80
1982
1983
1984
1985
1986
A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A


S & P 500 FUTURES IMM WEEKLY H.L.C.
[WEEKLY HIGH, LOW & CLOSE OF NEAREST FUTURES]
%
240
220
200
180
160
140
120
100
80
1982
1983
1984
1985
1986
A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A


VALUE LINE COMP. AVERAGE (VLIC)
(WEEKLY HIGH,LOW & CLOSE)
%
240
220
200
180
160
140
120
100
1982
1983
1984
1985
1986
A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A


VALUE LINE FUTURES KCBT
WEEKLY HIGH,LOW & CLOSE OF NEAREST FUTURES)
%
240
220
200
180
160
140
120
100
1982
1983
1984
1985
1986
A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A

Sugar

The estimated worldwide production of centrifugal sugar in the 1984/85 growing season was 108 million metric tons (tonnes). Roughly 63 million tonnes came from cane, the remainder from beets. About 21 percent of total output originated in Asia, including Khandari sugar from India; 13.6 percent, all of it produced from beets, came from the European Community; and almost 15 percent was produced in South America. The prediction for 1985/86 was for a decline in the world's output by 4 percent, to about 104 million tonnes, chiefly because of reduced production in Cuba and Brazil.

Although sugar consumption has been falling in North America, mainly because of dietary concerns, it continues to rise slowly but perceptibly nearly everywhere else on the globe. The largest regional growth is occurring in Asia, despite declining usage in India and Japan. Growth is also noticeable in eastern Europe, the Middle East, and North Africa. Worldwide consumption in 1984/85 was estimated at 96.8 million metric tonnes and is expected to hit 97.5 million tonnes during 1985/86.

With annual output outstripping consumption by about 5 percent, it came as no surprise that sugar prices in the world's markets were in a downward trend. By the middle of 1985 the world price was down to 3 cents a pound. The decline was reversed temporarily during the latter half of the year: export sales by Brazil and the Philippines were deferred and both countries announced their intention to reduce both production and exportation of sugar; and unfavorable growing conditions in the Caribbean further curbed the supply of new sugar. At year's end, as a result, the world price was over 5.5 cents per pound. These events notwithstanding, the availability of large stocks of the product and unimpaired production in other sugar-producing countries argues that supply will continue to exceed demand for some time, so prices are unlikely to begin a long-term rise.

Further complicating the market picture, more than half the sugar that moves into international-trading channels is exchanged at preferential prices. During 1984, for instance, spot No. 11 sugar had a world market price of 5.18 cents per pound, but the average price in international transactions was nearly 13.5 cents. Price-cost relationships are so distorted that it is no wonder that worldwide production increased 19 percent between 1980 and 1984, despite a market-price decline of 82 percent.

In the U.S., cane sugar production in 1985/86 was expected to amount to about 5.6 million tonnes, raw value, measurably higher than in 1984/85. Both beet and cane sugar production were expected to rise: beet production was estimated preliminarily at 2.95 million tonnes, as expanded acreage under cultivation and improved yields in the East more than offset lower acreage in the Great Plains and lower yields per acre in California.

While consumption of high-fructose corn syrup has increased rapidly in the U.S. in late years and while corn syrup in 1985 for the first time was consumed in greater volume than refined sugar, USDA believes syrup's usage is approaching its technical limits for sugar substitution. Moreover, sellers of corn syrup must contend with vigorous competitors offering non-caloric sweeteners, especially in soft drinks and other non-alcoholic beverages.

Futures Markets

Both world and domestic raw sugar futures are traded on the Coffee, Sugar & Cocoa Exchange, Inc. in New York. World raw sugar futures are also actively traded on the London United Terminal Sugar Market. In addition, white sugar futures are actively traded on the Paris International White Sugar Market.

World Production of Sugar (Centrifugal Sugar–Raw Value) In Thousands of Metric Tons

Crop Year	Australia Cane	Brazil Cane	China (Mainland)	Cuba Cane	South Africa Cane	India Cane	Indonesia Cane	Philippines Cane	Poland Beet	W. Germany	United States		USSR Beet	Mexico	France	World Total All
											Beet	Cane				
1977–8	3,322	8,863	2,450	7,200	2,211	8,201	1,125	2,397	1,819	3,076	2,820	1,497	8,825	3,029	4,268	92,454
1978–9	2,978	7,740	2,558	7,500	2,209	7,071	1,372	2,347	1,763	2,997	2,984	1,436	9,300	3,058	4,000	91,264
1979–0	2,967	6,990	2,507	6,500	2,206	5,170	1,331	2,325	1,582	3,095	2,612	1,488	7,800	2,763	4,257	84,560
1980–1	3,389	8,508	3,000	7,542	1,709	6,542	1,338	2,373	1,134	2,988	2,857	1,547	7,196	2,518	4,262	88,466
1981–2	3,434	8,393	3,400	8,207	2,181	9,727	1,742	2,503	1,873	3,688	3,011	1,603	6,413	2.842	5,576	100,555
1982–3	3,535	9,300	4,132	7,200	2,256	9,508	1,731	2,521	2,009	3,591	2,483	1,712	7.392	3,078	4,833	101,342
1983–4	3,414	9,400	3,825	8,330	1,462	7,042	1,762	2,381	2,141	2,726	2,422	1,552	8,700	3,242	4,153	96,693
1984–5[2]	3,547	9,300	4,627	8,100	2,514	7,071	1,827	1,600	1,878	3,150	—5,240—		8,600	3,436	4,624	100,667
1985–6[1]	3,500	8,200	5,196	7,000	2,317	7,344	1,850	1,400	1,812	3,250	—5,398—		8,900	3,500	4,541	98,027

[1] Estimated. [2] Preliminary. *Source: Foreign Agricultural Service, U.S.D.A.* T.644

United States Sugar (Cane & Beet) Supply and Utilization In Thousands of Short Tons (Raw Value)

	Supply								Utilization						
	Production			Offshore Receipts									Domestic Disappearance		
Year	Cane	Beet	Total	Foreign	Territories	Total	Beginning Stocks	Total Supply	Total Use	Exports	Net Changes in Invisible Stocks	Refin. Loss Adjust[3]	Imp. Blends & Mixtures	Military & Civilian Total	Military & Civilian Per Capita
1977	2,666	3,423	6,089	6,138	102	6,240	3,498	15,827	11,336	22	201	14	—	11,099	94.2
1978	2,535	3,067	5,602	4,683	52	4,735	4,491	14,828	11,074	48	29	108	4	10,889	91.4
1979	2,727	3,066	5,793	5,027	47	5,074	3,754	14,621	10,921	73	-12	103	—	10,756	89.3
1980	2,684	3,052	5,736	4,495	178	4,673	3,701	14,110	11,028	689	72	78	—	10,189	83.6
1981	3,043	3,182	6,225	5,025	48	5,073	3,082	14,380	10,919	1,191	-94	53	—	9,769	79.4
1982	2,776	3,160	5,936	2,964	80	3,044	3,461	12,441	9,373	137	23	53	7	9,160	73.7
1983	3,094	2,588	5,682	3,186	67	3,253	3,068	12,003	9,433	300	144	72	105	8,917	71.1
1984[1]	2,831	3,059	5,890	3,559	24	3,583	2,570	12,043	9,038	429	-26	58	115	8,569	67.7
1985[2]	3,100	2,869	5,969	2,872	74	2,946	3,005	11,919	8,793	464	-40	122	75	8,110	63.4
1986[2]							3,126								

[1] Preliminary. [2] Estimate. [3] Residual. *Source: Agricultural Marketing Service, U.S.D.A.* T.645

Sugar Cane for Sugar & Seed and Production of Cane Sugar and Molasses in the United States

			Production				Farm Value		Sugar Production			Molasses Made		
			1,000 Tons				1,000 Dollars		Raw Value			1,000 Gallons		
Year	Acreage Harvested 1,000 Acres	Yield of Cane per Acre Tons	for Sugar	for Seed	Total	Farm Price $ per Ton	of Cane used for Sugar	of Cane used for Sugar & Seed	Total 1,000 Tons	Per Ton of Cane Lbs.	Refined Basis 1,000 Tons	Blackstrap (80° Brix)	Edible	Total
1976	747	37.6	26,919	1,201	28,120	13.70	408,403	425,342	2,724	202	2,545	179,180	2,574	180,730
1977	759	35.3	25,730	1,100	26,830	18.50	454,217	474,257	2,684	209	2,508		2,538	164,894
1978	744	35.0	24,821	1,176	25,997	19.40	483,905	507,069	2,612	210	2,441		2,750	161,810
1979	733	36.2	25,410	1,122	26,532	26.00	661,212	690,544	2,700	213	2,524		2,900	164,581
1980	733	36.8	25,582	1,381	26,963	38.50	984,559	1,035,990	2,728	213	2,550		1,900	163,341
1981	755	36.3	26,165	1,243	27,408	24.90	650,721	681,983	2,833	217	2,647		2,100	182,656
1982	742	40.1	28,450	1,321	29,770	26.50	754,587	789,896	3,063	215	2,863		1,550	177,041
1983[1]	768	36.7	27,201	960	28,161				2,930	215	2,739			177,725
1984[1]	741	36.6	26,008	1,332	27,340				3,007		2,811			175,573
1985[1]	765	36.6	26,677	1,311	27,988				3,014		2,816			176,322

[1] Preliminary. *Source: Statistical Reporting Service, U.S.D.A.* T.646

U.S. Sugar Beets, Beet Sugar, Pulp, & Molasses Produced from Sugar Beets & Raw Sugar Spot Prices

	Sugar Beets						Sugar Production		Raw Sugar Prices			
	Acreage						1,000 Sh. Tons		Cents Per Lb.			
	1,000 Acres									Cof., Sugar Exch.		
Year of Harvest	Planted	Harv.	Yield Per Har Acre Tons	Production 1,000 Tons	Price[1] Dollars	Farm Value $1,000	Refined Basis	Equivalent Raw Value[2]	World[4] Intern. Agreem.	World	N.Y. Duty Paid	Sugar Act Beet Payments $ Per Ton
1977	1,273	1,216	20.6	25,007	24.20	604,399	2,905	3,108	8.10	8.11	11.00	
1978	1,305	1,269	20.3	25,788	25.20	649,846	3,074	3,289	7.81	7.82	13.93	
1979	1,161	1,120	19.6	21,996	33.90	745,273	2,691	2,879	9.65	9.66	15.56	
1980	1,231	1,190	19.8	23,502	47.20	1,108,974	2,943	3,149	28.66	29.02	30.11	
1981	1,252	1,228	22.4	27,538	29.20	803,569	3,166	3,388	16.89	16.93	19.73	
1982	1,054	1,027	20.3	20,894	35.40	740,342	2,558	2,737	8.40	8.42	19.92	
1983	1,081	1,056	19.9	20,992	37.00	777,718	2,522	2,699	8.46	8.49	22.04	
1984[3]	1,124	1,096	20.2	22,134	33.90	750,162	2,715	2,905	5.21	5.18	21.74	
1985[3]	1,125	1,103	20.5	22,636			2,759	2,952	4.06	4.04	20.34	

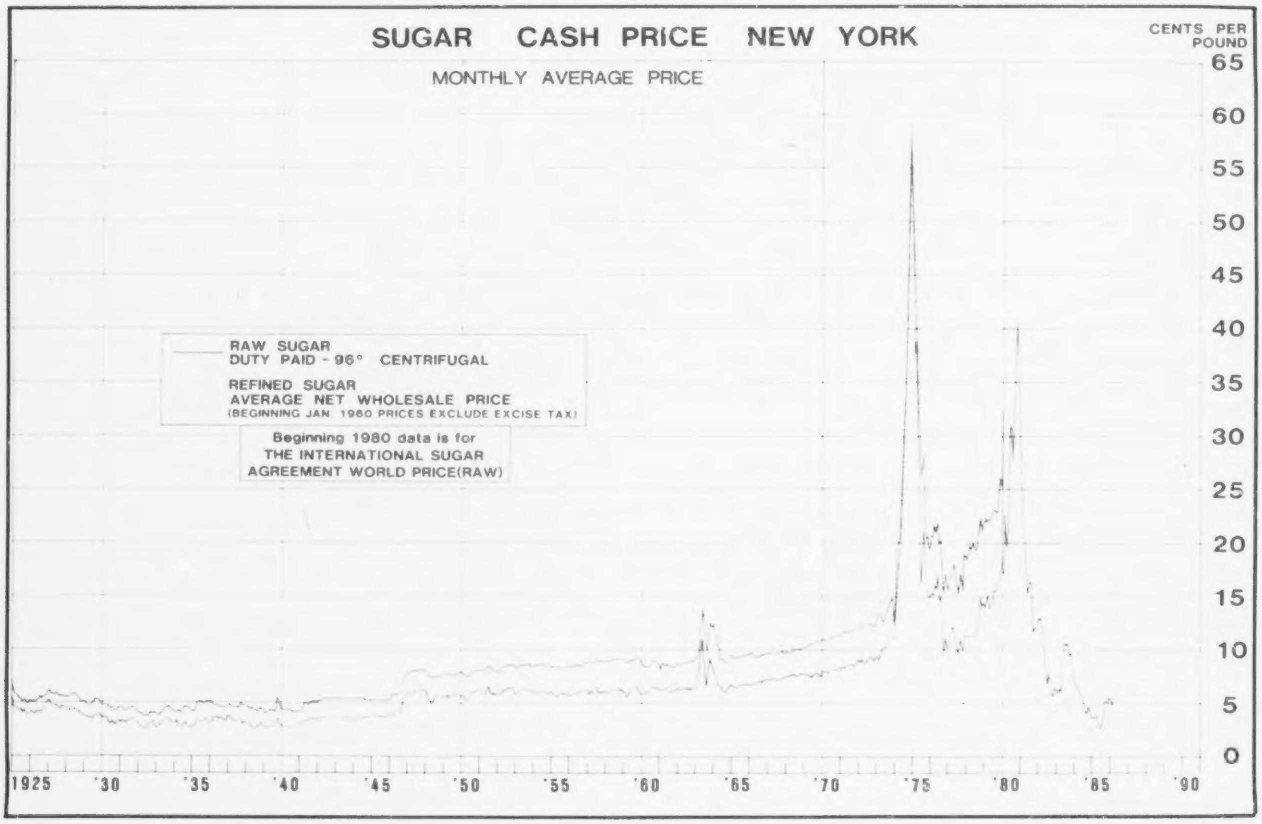
[1] Includes support payments, but excludes Sugar beet payments. [2] Refined sugar multiplied by factor of 1.07. [3] Preliminary. [4] International Sugar Agreement, World Price. *Source: Statistical Reporting Service, U.S.D.A.* T.647

SUGAR

Raw Sugar N.Y. Spot Price (C.I.F., Duty/Fee Paid, Contract #12) In Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1980	19.66	24.69	21.18	22.67	31.89	32.10	28.75	33.14	36.03	41.70	39.28	30.29	30.11
1981	29.57	26.07	23.81	19.91	17.43	18.95	19.10	17.42	15.49	15.66	16.28	17.07	19.73
1982	18.16	17.77	17.13	17.89	19.57	21.03	22.15	22.45	20.88	20.44	20.79	20.83	19.92
1983	21.23	21.76	21.86	22.43	22.60	22.54	22.09	22.55	22.20	21.94	21.83	21.47	22.04
1984	21.51	21.90	22.00	22.03	22.01	22.06	21.89	21.72	21.70	21.56	21.40	21.10	21.74
1985	20.72	20.38	20.91	20.97	21.09	21.27	21.23	20.59	19.51	18.68	18.89	19.89	20.34
1986	20.67	21.01											

Sources: Economic Research Service, U.S.D.A.; N.Y. Coffee & Sugar Exchange T.648



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United States Production & Imports of Edible Sirups In Thousands of Gallons

	Production[2]								Imports				
	Sirups												
Year	Corn	Cane	Sorghum	Maple	Refiners	Edible Molasses	Honey	Total	Maple Sirup	Edib. Molas. & Cane Sirup	Honey	Shipm. From Terr.	Total
1978	751,809	—	—	1,154	2,571	2,750	19,466	777,750	811	2,077	4,727	—	7,615
1979	845,741	—	—	1,219	2,524	2,900	20,160	872,544	857	2,944	4,948	—	8,749
1980	941,056	—	—	973	1,983	1,900	16,871	962,783	855	3,422	4,143	—	8,420
1981	1,073,933	—	—	1,410	1,446	2,100	15,703	1,094,592	1,046	2,040	6,530	—	9,616
1982	1,212,759	—	—	1,292	1,003	1,550	18,666	1,235,270	1,154	2,566	7,767	—	11,487
1983[1]	1,334,557	—	—	1,150	1,000	1,850	17,314	1,355,871	1,287	2,336	9,277	—	12,900
1984[1]										3,495			
1985[1]										4,164			

[1] Preliminary. [2] Production of cane sirup, sorghum sirup, & edible molasses is of the fall of the preceding year. *Source: Agricultural Marketing Service, U.S.D.A.* T.652

U.S. Exports & Domestic Consumption of Edible Sirups, Corn Sugar & Sugar In Thousands of Gallons

				Indicated Domestic Consumption					Per Capita Consumption in Pounds							
	Exports			Sirups									Sugar			
Year	Corn Sirup	Honey	Total	Corn	Maple	Cane & Refin. & Edib. Mol.	Honey	Total	Corn Sweeteners[2]	Corn Sugar	Aspartame	Saccharin	U.S. Grown	Cane	Total	Total All Sweeteners
1978	1,694	679	2,373	750,115	1,965	7,398	23,514	782,992	33.7	5.5	0	6.9	50.3	64.0	91.4	
1979	1,207	747	1,954	844,534	2,076	8,368	24,361	879,339	36.8	5.5	0	7.0	47.6	62.8	89.3	
1980	3,498	722	4,220	937,558	1,828	7,620	20,292	967,298	40.2	5.5	0	7.7	51.2	56.8	83.6	132.8
1981	2,916	777	3,693	1,071,017	2,456	5,586	21,456	1,100,515	44.5		.2	8.0	47.1	53.8	79.4	133.3
1982	791	721	1,512	1,211,968	2,446	5,119	25,712	1,245,245	48.2		1.0	8.4	49.8	48.4	73.7	132.6
1983	1,223	630	1,853	1,333,334	2,437	5,186	25,961	1,366,918	52.2		3.5	9.5	47.1	47.9	71.1	137.8
1984[1]									57.9		5.8	10.0			67.7	142.7
1985[1]									65.0		11.0	6.0			63.4	146.8

[1] Preliminary. [2] Corn Syrup & Dextrose. *Source: Agricultural Marketing Service, U.S.D.A.* T.653

Sugar Deliveries and Stocks in the United States In Thousands of Short Tons, Raw Value

	Deliveries by Primary Distributors							Stocks (January 1)					
Year	Cane[1] Sugar Refineries	Beet Sugar Factories	Importers of Direct Consumption Sugar	Cane Sugar Mills[1]	Total	Sales of Refined Sugar For Export	Total Domestic Consumption[2]	Cane Sugar Refineries	Beet Sugar Factories	Importers of Direct-Consumption	Refiners' Raws	Mainland Cane Mills	Total
1978	7,691	3,198	180	18	10,174	48	10,889	286	1,691	91	964	556	3,588
1979	7,565	3,191	84	18	10,069	73	10,756	257	1,560	0	510	641	2,968
1980	7,024	3,165	7	45	9,933	689	10,189	315	1,205	0	691	1,068	3,279
1981	6,617	3,151	17	24	10,207	1,191	9,769	272	1,286	0	832	658	3,048
1982	6,127	3,026	46	24		137	9,160	272	1,296	0	844	931	3,344
1983	5,910	2,902				300	8,917	262	1,417	0	510	701	2,897
1984	5,703	2,732				429	8,569	225	1,103	0	528	592	2,448
1985[3]	5,037	2,979				464	8,110	214	1,430	0	473	762	2,879
1986[3]								197	1,189	0	523	834	2,964

[1] Sugar for direct consumption only. [2] Includes deliveries for U.S. military forces at home and abroad. [3] Preliminary. *Source: Department of Agriculture* T.654

Sugar, Refined—Deliveries by Type of Product of Buyer in the U.S. In Thousands of Short Tons

Year	Bakery & Cereal Pdts.	Beverages	Confectionery[3]	Institutions	Dairy Products	Processed Foods	Other Food Uses	Retail Grocers[4]	Wholesale Grocers[5]	Other Uses[2]	Total Deliveries	In Consumer Size Pckgs.	To Industrial Users
1978	1,308	2,608	912	230	531	689	412	1,180	1,996	161	10,027	2,267	909
1979	1,289	2,441	911	276	480	681	483	1,239	2,038	126	9,934	2,410	867
1980	1,337	2,161	932	303	450	535	589	1,169	1,881	120	9,477	2,347	703
1981	1,306	1,852	983	259	459	484	581	1,161	2,001	126	9,212	2,425	737
1982	1,296	1,583	940	177	404	450	526	1,086	1,951	106	8,519	2,310	727
1983	1,387	1,248	1,087	195	385	454	431	1,168	1,713	131	8,199	2,314	567
1984	1,404	908	1,115	209	408	433	416	1,100	1,744	127	7,863	2,274	570
1985[1]	1,499	339	1,060	204	441	422	438	1,001	1,884	131	7,472	2,184	761

[1] Preliminary. [2] Used largely for pharmaceuticals & some tobacco. [3] And related products. [4] Chain stores, supermarkets. [5] Jobbers, sugar dealers. *Source: Stat. Rep. Serv., U.S.D.A.* T.649

SUGAR

World Stocks of Centrifugal Sugar as of Sept. 1 In Thousands Metric Tons (Raw Value)

Sugar-Making Season	Australia	Brazil	France	W. Germany	India	Italy	Japan	Mexico	Netherlands	Philippines	Sweden	Iran	United Kingdom	United States & Ins. Areas	Total
1976-7	328	1,746	174	165	737	337	98	642	139	744	138	207	139	2,399	10,574
1977-8	534	1,286	706	202	732	562	104	198	199	1,607	127	304	253	2,718	12,820
1978-9	383	1,516	947	305	1,448	859	350	134	207	1,290	140	364	234	3,375	15,843
1979-0	687	3,008	962	537	1,934	758	421	138	222	1,214	108	354	455	3,549	19,122
1980-1	555	1,959	899	535	386	833	497	192	196	727	93	325	625	2,904	14,353
1981-2	499	2,234	415	300	706	663	212	167	181	158	75	275	706	2,508	12,322
1982-3	672	1,955	1,092	458	3,144	880	341	91	243	269	91	280	828	2,783	17,292
1983-4[1]	727	2,555	1,167	358	3,520	609	262	191	210	69	71	780	1,120	2,178	18,402

[1] Preliminary. *Source: Foreign Agricultural Service, U.S.D.A.* T.650

Month-End Open Interest of World Sugar (#11) Futures at New York In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1978	41,918	32,736	30,260	31,558	34,902	34,186	35,419	34,381	30,702	31,290	30,439	31,498
1979	35,004	34,529	36,200	31,824	36,521	39,646	44,938	58,184	61,442	73,701	87,182	92,007
1980	103,041	87,843	68,667	61,126	69,666	68,554	68,996	70,993	71,316	79,313	76,754	64,740
1981	61,522	57,087	59,025	54,898	62,330	61,022	66,730	64,604	52,740	60,761	66,399	72,326
1982	76,623	60,990	65,457	57,719	61,332	51,267	54,706	51,737	42,363	50,682	61,916	64,406
1983	78,889	76,429	83,851	88,011	99,100	94,091	94,216	94,245	80,360	81,261	83,302	84,059
1984	81,806	73,634	92,503	84,925	92,769	89,393	90,897	98,425	76,056	85,413	86,508	80,550
1985	91,973	81,892	84,390	78,336	94,570	81,969	91,489	92,291	85,946	84,583	97,145	93,355
1986	96,382	85,112	118,580									

Source: Coffee, Sugar & Cocoa Exch., Inc., N.Y. T.660

Volume of Trading of World Sugar (#11) Futures at New York In Contracts

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1978	61,854	70,103	86,634	79,359	65,623	98,323	75,940	116,271	115,808	99,632	75,243	71,983	1,016,773
1979	72,961	107,951	76,267	82,804	64,224	132,200	121,474	142,006	192,200	255,858	278,458	256,919	1,783,342
1980	381,805	354,441	338,118	245,233	309,417	277,846	271,884	279,149	317,170	295,673	250,627	255,379	3,576,702
1981	233,217	237,286	212,519	240,420	212,708	241,736	192,142	203,404	247,160	138,529	137,768	183,438	2,470,327
1982	166,913	209,386	199,263	217,689	138,377	177,657	176,641	144,980	151,639	140,262	160,656	154,657	2,037,020
1983	207,678	249,392	198,034	261,939	396,435	396,267	272,150	329,129	283,827	214,897	231,757	160,436	3,201,941
1984	192,451	205,499	252,489	227,150	175,268	213,491	163,955	228,279	263,419	234,008	154,735	124,579	2,449,549
1985	273,316	265,967	215,540	210,046	193,527	237,904	263,842	338,816	323,387	224,856	216,340	249,398	3,012,929
1986	308,004	268,053	382,043										

Source: Coffee, Sugar & Cocoa Exch., Inc., N.Y. T.661

United States Deliveries[1] of All Sugar by Primary Distributors In Thousands of Short Tons, Raw Value

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	838	774	964	811	893	947	923	1,103	860	924	879	840	10,756
1980	794	848	866	772	943	882	910	904	909	825	717	818	10,189
1981		2,217			2,522			2,726			2,303		9,769
1982		2,083			2,418			2,400			2,252		9,153
1983		2,078			2,195			2,350			2,189		8,812
1984		2,032			2,093			2,231			2,059		8,435
1985[2]		1,910			1,952			2,150			2,004		8,016

[1] Includes for domestic consumption and for export. [2] Preliminary. *Source: Department of Agriculture* T.659

Centrifugal Sugar (Raw Value) Imported into Selected Countries In Thousands of Metric Tons

Crop Year	Algeria	Canada	Chile	France	W. Germany	Israel	Japan	Malaysia	Morocco	Nigeria	Iran	Un. Kingdom	China	United States	USSR	World Total[2]
1976	354	895	98	136	169	131	2,439	336	263		626	2,101	638	4,136	3,760	22,593
1977	431	1,064	342	110	108	153	2,708	336	389	329	277	1,870	1,676	5,290	4,776	25,949
1978	437	1,030	317	117	152	195	2,284	398	294	595	875	1,689	1,438	3,616	3,993	23,843
1979	513	1,010	294	103	146	256	2,605	418	279	530	746	1,424	985	4,437	4,080	24,827
1980	569	859	433	69	150	119	2,265	510	332	709	785	1,404	946	3,802	4,981	26,480
1981-2	535	929	194	376	186	180	2,209	432	350	600	755	1,307	1,060	3,196	6,883	28,935
1982-3	600	993	249	357	183	207	1,770	500	307	570	650	1,050	2,480	2,865	5,926	28,452
1983-4[1]	565	843	200	363	180	190	1,870	511	360	650	650	1,500	1,362	3,442	5,600	25,839
1984-5[3]	565	930	81	360	175	190	1,870	500	360	650	650	1,300	1,000	3,187	5,250	26,260

[1] Preliminary. [2] Excludes U.S. trade with Territories. [3] Forecast. *Source: Foreign Agricultural Service, U.S.D.A.* T.655

Centrifugal Sugar (Raw Value) Exported from Selected Countries In Thousands of Metric Tons

Crop Year	Australia	Brazil	Czechoslovakia	Cuba	Dom. Republic	France	Thailand	Mauritius	Peru	Philippines	South Africa	Taiwan	Un. Kingdom	USSR	World Total[2]
1976	2,016	1,252	71	5,764	977	1,422	1,124	584	284	1,467	860	519	285	79	22,818
1977	2,558	2,518	171	6,238	1,101	1,816	1,657	637	434	2,443	1,384	599	178	87	28,271
1978	2,482	2,005	306	7,231	901	2,357	1,040	579	275	1,142	719	365	93	174	26,088
1979	2,002	1,860	242	7,269	986	2,347	1,190	641	181	1,150	884	387	76	244	26,373
1980	2,410	2,615	186	6,191	794	2,750	479	655	53	1,745	785	403	100	164	27,290
1981-2	2,620	2,984	160	7,734	816	3,226	2,419	560	63	1,314	851	380	122	268	33,044
1982-3	2,687	2,984	250	6,792	816	3,066	1,560	628	92	1,407	1,027	181	390	165	31,701
1983-4[1]	2,600	3,100	175	7,100	864	3,300	1,366	624	120	965	424	150	240	250	30,670
1984-5[3]	2,860	2,800	200	7,000	900	3,000	2,100	575	130	950	990	10	175	300	30,220

[1] Preliminary. [2] Excludes U.S. trade with Territories. [3] Forecast. *Source: Agricultural Marketing Service, U.S.D.A.* T.656

Spot Raw Sugar International Sugar Agreement World Price In Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1979	7.57	8.23	8.46	7.82	7.85	8.14	8.52	8.85	9.90	11.94	13.68	14.93	9.65
1980	17.16	22.69	19.64	21.24	30.94	30.80	27.70	31.77	34.89	40.53	37.81	28.79	28.66
1981	27.78	24.09	21.81	17.83	15.06	16.38	16.34	14.76	11.65	12.04	11.97	12.98	16.89
1982	12.90	13.07	11.26	9.58	8.11	6.84	7.80	6.77	5.76	5.93	6.52	6.31	8.40
1983	6.03	6.43	6.20	6.71	9.24	10.74	10.53	10.56	9.43	9.69	8.33	7.67	8.46
1984	6.97	6.64	6.42	5.99	5.61	5.53	4.54	4.05	4.16	4.65	4.38	3.55	5.21
1985	3.62	3.70	3.83	3.42	2.82	2.78	3.18	4.39	5.14	5.01	5.48	5.34	4.06
1986[1]	4.86	5.57											

[1] Preliminary. *Source: Sugar Division, Commodity Stabilization Service* T.657

Average Refined Cane Sugar[1] (Wholesale)—Chicago-West In Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1979		19.15			19.15			19.15			21.27		19.68
1980		28.71			36.30			41.17			47.00		38.30
1981		35.50			27.47			25.43			24.63		28.95
1982		27.50			26.77			28.20			28.00		27.62
1983		24.53			26.53			26.96			26.56		26.09
1984		26.62			26.42			25.35			24.24		25.66
1985		23.31			23.26			23.40			22.75		23.18

[1] These are f.o.b. basis prices in 100-lb. paper bags, not delivered prices. To obtain delivered prices, add freight "prepays" & deduct discounts & allowances. *Source: Economies & Statistics Service, U.S.D.A.* T.658

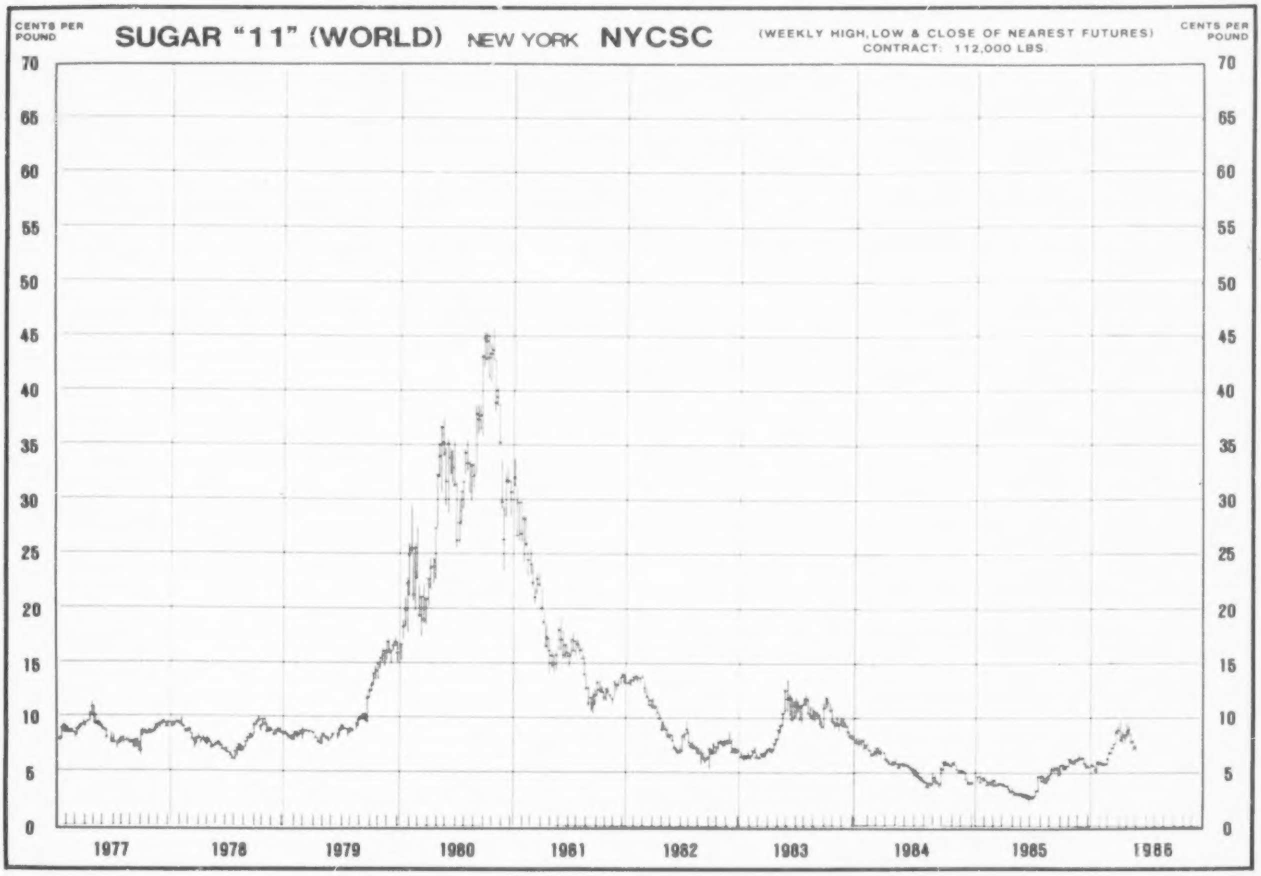
SUGAR

High, Low & Closing Prices of March World Sugar (#11) At New York In Cents per Pound

Year of Delivery		Year Prior to Delivery													Delivery Year		Life of Delivery Range
		Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	
1981	High	17.06	22.42	28.50	30.08	28.00	39.45	39.38	38.35	37.30	42.20	45.05	45.75	33.75	33.85	28.60	45.75
	Low	15.50	15.56	22.35	21.70	22.60	28.00	33.30	28.17	32.40	33.90	40.85	35.05	24.50	26.15	23.00	13.75
	Close	16.41	22.38	27.37	23.53	27.20	37.94	38.34	32.25	35.07	41.16	43.34	35.11	30.58	26.79	23.25	—
1982	High	28.20	27.68	26.18	22.20	20.30	17.85	19.00	17.95	16.80	13.60	13.36	13.28	14.06	14.10	13.98	36.60
	Low	23.75	23.85	22.10	19.35	16.65	15.40	16.05	15.85	13.25	11.75	11.50	11.67	12.52	12.64	12.23	11.50
	Close	25.68	24.50	22.13	20.08	17.43	17.85	16.05	16.98	13.26	13.11	12.52	13.01	13.18	13.58	12.63	—
1983	High	15.15	15.25	15.05	13.68	12.51	10.50	9.35	10.74	8.97	8.22	7.85	8.33	8.28	6.84	7.34	15.25
	Low	13.98	14.03	13.49	12.18	10.28	9.24	8.28	8.37	7.83	7.05	6.60	7.27	6.80	6.05	6.08	6.05
	Close	14.71	14.90	13.65	12.49	10.52	9.25	9.33	8.78	7.96	7.11	7.84	8.32	6.85	6.20	6.28	—
1984	High	9.95	8.92	9.45	9.00	9.77	14.48	13.50	13.16	13.44	11.96	11.94	10.10	9.62	8.29	7.66	14.48
	Low	8.75	8.48	8.11	8.08	8.72	9.60	11.33	10.84	11.60	10.98	9.33	8.82	7.99	7.26	5.65	5.65
	Close	8.98	8.62	8.17	9.00	9.64	14.48	12.52	12.79	11.63	10.94	9.36	9.57	8.18	7.50	5.73	—
1985	High	11.50	10.25	9.60	9.44	9.12	8.39	7.70	6.74	6.08	6.17	6.27	6.05	5.35	4.84	4.45	13.60
	Low	10.06	9.38	8.63	8.74	8.28	7.19	6.61	5.62	4.94	5.05	5.33	5.08	4.02	4.01	3.74	3.74
	Close	10.16	9.56	8.75	9.04	8.40	7.45	6.73	5.72	5.80	5.44	5.83	5.28	4.16	4.32	4.10	—
1986	High	7.40	7.12	6.43	6.05	5.21	4.69	4.33	5.45	5.59	6.20	6.15	6.39	6.56	6.13	6.52	8.27
	Low	6.02	6.13	5.70	5.05	4.58	3.98	3.34	3.59	4.41	5.17	5.25	5.73	5.38	4.97	5.60	3.34
	Close	6.22	6.31	5.83	5.06	4.17	4.28	3.63	5.22	5.13	5.65	6.14	6.13	5.62	5.92	6.28	—
1987	High	7.68	7.60	7.50	9.48												
	Low	6.70	6.45	6.95	7.33												
	Close	6.96	7.36	7.37	9.43												

Source: Coffee, Sugar & Cocoa Exch., Inc., N.Y.

T 662



Sulfur

World production of sulfur in 1985 increased about 4 percent from the year before and was the largest since 1980. The U.S., the major supplier, accounted for 21 percent of all output, while the USSR, Canada, and Poland were other main producers. Global demand continued to exceed production in 1985, resulting in stock drawdowns of 2 million tonnes, versus withdrawals of 4 million tonnes in 1984 and 3 million in 1983. Almost two-thirds of annual world elemental sulfur production is in the form of byproducts from petroleum refining or natural gas processing.

U.S. sulfur output (from mines, as petroleum and gas byproducts, and from manufacturing) is estimated to have expanded by almost 9 percent in 1985. Apparent domestic consumption retreated about 7 percent, primarily because of reduced demand by the fertilizer industry. In 1985, sulfur was consumed in the U.S. as follows: fertilizers and agricultural chemicals, 67 percent; organic, inorganic, and other chemicals, 9 percent; petroleum refining, 7 percent; metal mining, 2 percent; and other uses, 15 percent. U.S. sulfur imports, which come mainly from Canada and Mexico, fell about 18 percent in 1985. Also an exporter of sulfur, the U.S. shipped about 2 percent more to foreign buyers in 1985 than in 1984. U.S. ending stocks in 1985 were preliminarily forecast to have increased by about 14 percent from the year before.

The U.S. Bureau of Mines estimates that domestic sulfur demand is likely to expand 3.2 percent annually from a 1983 base through 1990.

World Production of Sulfur [All Forms] In Thous. of Metric Tons

Year	Canada	Chile	China	France	W. Germany	Israel	Italy	Japan	Mexico	Poland	Spain	Turkey	USSR	United States	Yugoslavia	World Total
1979	7,027	104	2,000	2,288	1,649	10	571	2,891	2,125	5,195	1,224	107	9,240	12,101	395	53,227
1980	7,260	115	2,200	2,216	1,799	10	604	2,784	2,217	5,535	1,236	126	9,590	11,866	457	54,983
1981	6,799	143	2,300	2,042	1,732	10	544	2,609	2,178	5,123	1,268	177	9,690	12,145	478	53,372
1982	6,281	137	2,300	2,061	1,821	10	489	2,595	1,916	5,285	1,167	185	9,540	9,787	544	50,753
1983[1]	6,573	131	2,850	1,931	1,322	10	407	2,613	1,702	5,349	1,204	188	9,390	9,290	540	50,315
1984[2]	6,609	127	2,650	1,900	1,490	10	490	2,572	1,925	5,350	1,230	195	9,340	10,652	483	51,884
1985[2]	6,750			1,800	1,600		500	2,700	2,000		1,250			11,350		54,000

[1] Preliminary. [2] Estimate. *Source: Bureau of Mines*

T 663

Salient Statistics of Sulfur in the United States In Thousands of Metric Tons of Sulfur Content

Year	Production of: Native Sulfur[2]: Frasch-Process Total	Native Sulfur[2]: Mines: Louisiana	Native Sulfur[2]: Mines: Texas	Recovered Elemental Brimstone	Pyrites (Includ. Coal Brasses)	By-product Sulfuric Acid[3]	Other Sulf. Acid Compounds	Production (All Forms)	Imports—Pyrites & Sulfur	Producers' Stocks Dec. 31[4]	Exports (Elemental)	Apparent Consumption (All Forms)	Sales Value of Shipments—FOB Mine/Plant: FAASCH ($ Per Tonne)	Recovered ($ Per Tonne)	Average ($ Per Tonne)
1978	5,648	1,928	3,720	4,062	301	1,103	61	11,175	2,177	5,345	827	12,600			
1979	6,357	2,460	3,897	4,070	400	1,167	107	12,101	2,494	4,239	1,963	13,739	59.87	48.23	55.75
1980	6,390	2,309	4,081	4,073	322	1,003	78	11,866	2,523	3,094	1,673	13,659	97.36	74.13	89.06
1981	6,348	2,440	3,908	4,259	307	1,159	72	12,145	2,522	3,634	1,392	12,785	121.11	97.97	111.48
1982	4,210	1,312	2,898	4,404	265	828	80	9,787	1,905	4,202	961	10,059	120.79	97.89	108.27
1983	3,202	1,286	1,915	4,955	N.A.	831	302	9,290	1,695	3,218	992	10,988	100.76	76.22	87.24
1984[1]	4,193	1,937	2,257	5,214	N.A.	962	283	10,652	2,557	2,434	1,334	12,679	109.20	80.02	94.31
1985[5]	5,011			5,280					2,104	2,815	1,365	12,000			104.68

[1] Preliminary. [2] Or sulfur ore. [3] Basis 100%, produced at Cu, Zn, & Pb plants. [4] Frasch & recovered. [5] Estimates. *Source: Bureau of Mines*

T 664

Sulfur Consumption & Foreign Trade of the United States In Thousands of Metric Tons

Year	Net Import Reliance as a % of Apparent Consumption	Apparent Consumption of Sulfur in All Forms[3]: Native Sulfur (Frasch)	Recovered Sulfur Shipm.	Total Pyrites Shipments	Smelter Acid Prod. Shipm.	Other Prod.[2] Shipm.	Total	Imports of Recovered Sulfur	Sales to Consumers of Frasch Sulfur	Imports of Frasch Sulfur	Foreign Trade: Exports: Quantity	Exports: Value Ths. $	Imports: Quantity	Imports: Value Ths. $
1979	11	6,773	4,108	400	1,167	107	13,739	1,265	7,507	1,229	1,963	142,966	2,494	94,147
1980	14	6,717	4,115	322	1,003	78	13,659	1,533	7,400	990	1,673	185,866	2,523	138,852
1981	5	5,550	4,207	307	1,159	72	12,785	1,666	5,910	856	1,392	187,407	2,522	209,766
1982	4	3,557	4,344	265	828	80	10,059	1,215	3,598	690	961	122,143	1,905	164,885
1983	15	4,114	5,041	N.A.	831	302	10,988	1,091	4,111	604	992	109,298	1,695	129,110
1984[1]	16	4,835	5,210	N.A.	962	283	12,679	1,812	5,001	722	1,334	156,067	2,557	200,189
1985[5]	5		5,280				12,000	1,350	4,680	720	1,365	189,248	2,104	199,240

[1] Preliminary. [2] Includes hydrogen sulfide, liquid sulfur dioxide. [3] Crude sulfur equivalent. [4] Estimate. *Source: Bureau of Mines* T 665

Sunflowerseed and Oil

World production of sunflowerseed for the 1985/86 season was forecast by the USDA in March 1986 at 19.1 million tonnes, up nearly 7 percent from estimated 1984/85 output. Expected gains in the Soviet Union, the world's largest sunflowerseed producer, Argentina and the European Community more than offset reductions in estimated U.S. and Eastern European production. The EC was expected to account for a larger-than-usual share of world production, partly because of favorable support prices.

Global sunflowerseed exports were expected by the USDA to total about 2.11 million tonnes, down from an estimated 2.16 million in the 1984/85 season. In 1985/86, the U.S. was expected to lose to France its position as the world's largest exporter of sunflowerseed. Mexico, the EC and Portugal have been major U.S. export markets, but U.S. exports to these countries have been declining, with Mexico and Portugal turning to Argentina and Australia for supplies. Also, Portugal, in line with its accession to the EC has agreed to impose a quota on imports of oilseeds—which could affect future U.S. exports.

World 1985/86 ending stocks of sunflowerseed were expected to total 846 thousand tonnes versus an estimated 488 thousand on September 30, 1985. The U.S. was expected to hold most of the expected increase in stocks.

The USDA forecast global 1985/86 sunflowerseed oil production at 6.49 million tonnes, 7 percent above estimated 1984/85 output. Most of the forecast increase in production was expected to be consumed domestically. World consumption (apparent) was estimated at 6.55 million tonnes, some 9 percent larger than in 1984/85. Global sunflowerseed oil exports were estimated by the USDA at 1.84 million tonnes, up slightly from 1.76 million in the past season, with Argentina maintaining its position as the major exporter. World ending stocks were projected at 226 thousand tonnes, about 11 percent lower than a year earlier.

Sunflowerseed meal production worldwide was estimated by the USDA at 7.58 million tonnes in 1985/86, up from 7.12 million in 1984/85. The Soviet Union and Argentina are by far the most important producers of meal, with Argentina the major exporter, accounting for 72 percent of estimated global exports of 1.66 million tonnes. World consumption was expected to total 7.59 million tonnes versus 7.28 million in 1984/85, and ending stocks were projected at 171 thousand tonnes versus 158 thousand on September 30, 1985.

World Production of Sunflowerseed In Thousands of Metric Tons

Crop Year	Argentina	Australia	Bulgaria	Canada	China	France	Hungary	India	Romania	South Africa	Spain	Turkey	United States	USSR	Yugoslavia	World Total
1981-2	1,980	115	457	165	1,332	398	624	159	810	254	405	575	2,035	4,678	327	14,801
1982-3	2,300	104	511	94	1,286	650	579	230	847	202	750	600	2,419	5,341	202	16,567
1983-4	2,200	170	454	51	1,340	828	581	300	700	180	750	685	1,451	5,040	139	15,435
1984-5[1]	3,400	257	453		1,704	957	642	365	851	238	1,100	650	1,698	4,520	154	17,818
1985-6[2]	3,500	217	425		1,900	1,400	700	400	710	365	915	700	1,430	5,230	237	19,097

[1] Preliminary. [2] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T 668

Sunflowerseed Statistics in the United States

Crop Year Begin Sept.	Acres Harvested In Ths.	Yield per Harv. Acre Pounds	Farm Price $ Metric Ton	Value of Production Mil. $	Supply				Disappearance					
					Production	Imports	Stocks Sept. 1	Total	Crushings	Exports	Non-Oil Usage	Seed	Residual	Total
					In Thousands of Metric Tons									
1981-2	3,811	1,177	238	485.4	2,035	32	182	2,249	374	1,555	—177—			2,106
1982-3	4,724	1,129	196	474.1	2,419	40	143	2,602	766	1,348	—191—			2,305
1983-4	3,063	1,044	289	419.3	1,451	31	297	1,779	590	1,047	—104—			1,741
1984-5[1]	3,692	1,014	250	424.5	1,698	26	38	1,762	567	997	—108—			1,672
1985-6[1]	2,844	1,109	190	271.7	1,430	33	90	1,553	500	600	—123—			1,223

[1] Preliminary. *Source, Economic Research Service, U.S.D.A.* T 666

Sunflowerseed Statistics in the United States In Metric Tons

Crop Year Begin. Oct.	Sunflowerseed Oil							Sunflowerseed Meal						
	Supply			Disappearance			Price $ per Metric Ton (Crude Mpls.)	Supply			Disappearance			Price $ per Metric Ton 28% Protein
	Stocks Oct. 1	Production	Total	Exports	Domestic	Total		Stocks Oct. 1	Production	Total	Exports	Domestic	Total	
1981-2	41	137	178	103	63	166	550	3	201	204	—	200	200	117
1982-3	12	303	315	229	43	272	495	4	434	438	—	433	433	112
1983-4	43	214	247	188	53	241	741	5	265	270	25	240	265	123
1984-5[1]	6	219	225	130	65	195	661	5	321	326	14	307	321	58
1985-6[1]	30	195	225	115	75	190	475	5	273	278	20	253	273	80

[1] Preliminary. [2] Estimate. *Source: Economic Research Service, U.S.D.A.* T 667

Tall Oil

Tall Oil—Supply & Distribution in the U.S. In Millions of Pounds

Year Beginning Oct. 1	Supply (Crude)			Disposition											
						Non Food Products									
	Pro-duction	Stocks Oct. 1	Total Supply	Ex-ports	To U.S. Territ.	Soap	Paint & Varnish	Lino-leum & Oil-cloth	Resins & Plastics	Other Drying Oils	Lubri-cants & Similar Oils	Fatty Acids	Other	Total Nonfood Products
1973	1,235	139	1,374	219	.3	3	42	—	—	—	8	967	42	1,062
1974	1,054	93	1,147	120	.1	2	33	—	—	—	7	783	33	858
1975-6	1,176	169	1,345	233	1.6	3	39	—	—	—	7	861	42	953
1976-7	1,181	148	1,329	176		7								1,015
1977-8	350	169	519	168		3								230
1978-9	1,267	150	1,417	107		3	8		5			1,141	96	1,254
1979-0[1]	1,353	150	1,503			3	11		10		6	1,208	74	1,312
1980-1[1]	1,336	155	1,491			4	11		15		5	1,206	94	1,334
1981-2[2]	1,190	137	1,327			3	16		17		4	1,096	48	1,185
1982-3[2]	1,557	151	1,708				33		25			1,096	64	1,228
1983-4[2]	1,293	204	1,497											
1984-5[2]		95												

[1] Preliminary. [2] Estimated. *Source: Agricultural Marketing Service, U.S.D.A.* T.669

U.S. Tall Oil Consumption in Inedible Products[2] In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1973	102.0	77.2	106.2	96.6	107.6	87.0	105.4	115.3	100.2	103.6	104.6	81.0	1,187
1974	98.6	77.5	90.5	86.8	92.9	81.4	90.5	84.0	70.6	83.1	82.5	84.0	1,022
1975	62.5	85.4	31.9	55.1	63.3	78.1	62.4	80.3	89.5	77.6	68.2	71.2	825
1976	65.7	91.0	87.2	70.4	101.5	82.8	69.4	98.9	68.6	80.8	79.4	79.5	975
1977[2]	81	88	103	97	99	95	87	97	85	110	100	91	1,134
1978	85	103	105	108	117	112	95	107	100	100	100	94	1,226
1979	97	102	111	119	125	123	90	85	107	117	105	103	1,284
1980	97	114	113	125	111	118	95	104	111	116	113	104	1,321
1981	110	110	107	110	128	124	97	112	104	104	108	83	1,203
1982	95.4	107.4	121.8	105.2	96.8	95.6	84.7	95.8	88.3	94.4	84.3	66.9	1,136
1983	100.0	96.3	106.9	92.8	98.7	109.1	98.1	114.0	93.7	94.1	95.0	82.6	1,181
1984[1]	100.8	100.7	105.6	97.8	104.2	113.6	117.2	105.2	111.2	100.6	95.7	85.2	1,238
1985[1]	84.1	87.2	94.3	90.4	84.6	85.8	91.7	95.2	91.7	97.6	88.2	85.1	1,076
1986[1]	86.3	93.1	105.8										

[1] Preliminary. [2] Prior to 1977, data is for Domestic Disappearance. *Source: Statistical Reporting Service, U.S.D.A.* T.670

Tall Oil Production in the United States In Millions of Pounds

Crop Year		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
1983-4	Crude	107.9	105.4	93.4	99.5	116.3	125.6	111.7	117.8	109.0	105.1	106.1	95.4	1,293.2
	Refined	12.1	14.8	9.9	13.0	11.6	13.4	12.0	13.4	10.7	13.0	12.9	12.6	149.4
1984-5	Crude	112.8	110.7	109.2	95.2	104.0	121.4	116.4	108.4	112.1	117.1	107.8	105.8	1,320.9
	Refined	12.9	11.7	10.9	10.2	9.9	11.8	9.9	10.3	9.7	7.3	10.0	10.5	125.1
1985-6[1]	Crude	115.5	103.5	102.9	120.2	113.8	127.4							
	Refined	9.8	9.2	8.7	8.4	8.0	8.4							

[1] Preliminary. *Source: Bureau of the Census* T.0578

Tall Oil Stocks in the United States In Millions of Pounds

Crop Year		Oct. 1	Nov. 1	Dec. 1	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1
1983-4	Crude	217.2	205.4	185.7	186.2	164.6	160.1	168.9	179.7	190.2	163.3	149.0	123.6
	Refined	19.9	18.8	18.1	17.4	16.3	15.9	15.5	12.9	11.7	9.2	11.1	11.1
1984-5	Crude	112.8	101.9	103.0	109.5	108.7	117.0	117.3	126.4	113.8	121.1	141.8	131.4
	Refined	9.9	10.9	12.6	13.0		17.7	18.3	21.9	22.9	23.8	25.9	29.4
1985-6[1]	Crude	125.9	125.1	158.7	167.6	154.1	160.7	184.3					
	Refined	19.7	19.7	19.9	21.2	18.5	19.3	25.3					

[1] Preliminary. *Source: Bureau of the Census* T.0578A

Tallow and Greases

The Foreign Agricultural Service of the USDA in early 1986 forecast world 1985/86 season tallow and grease production at 6.27 million tonnes, about 3 percent below the 1984/85 season estimate. An expected reduction in U.S. cattle and hog slaughter accounted for much of the expected tallow and grease output.

Edible tallow is primarily a byproduct of the commercial beef industry and, in the U.S., must be federally inspected to be termed "edible". It is used in some processed foods and in direct use as a frying fat in the "fast food" sector of the restaurant industry in competition with soybean oil, and other vegetable oils and lard, on a price basis. Inedible tallow and grease is a major raw material for fatty acids, and is used extensively in animal feeds. It is also used in some lubricants.

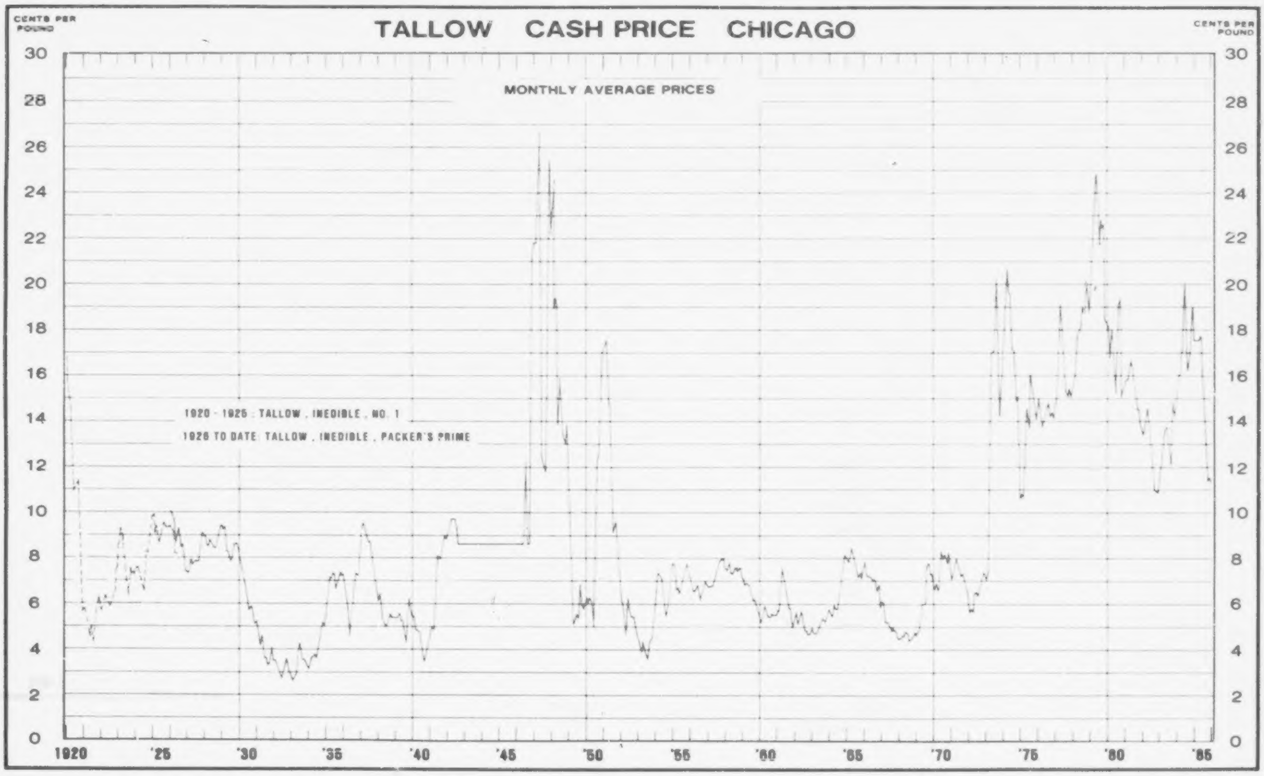
The U.S. is the world's largest producer of edible and inedible tallow and greases, and accounts for around 50 percent of total world production. In late 1985, the USDA forecast 1985/86 production of edible tallow at 1.50 billion pounds. This compares with 1984/85 (Oct.–Sept.) season production of 1.57 billion pounds, and 1.34 billion in 1983/84. U.S. factory and warehouse stocks of edible tallow at the end of the 1984/85 season amounted to 61.6 million pounds, sharply above 1983/84 ending stocks of 28.5 million as edible tallow prices were unattractive relative to competing oils.

U.S. consumption (domestic disappearance) of edible tallow in the 1985/86 season was forecast by the USDA at 1.43 billion pounds versus an estimated 1.45 billion in the 1984/85 season. Baking and frying fats account for most of U.S. consumption of edible tallow.

Inedible tallow and grease production in the U.S. in the 1984/85 season amounted to 5.83 billion pounds, according to U.S. Census Bureau data, versus 6.00 billion in 1983/84. September 30, 1985 stocks soared to 507 million pounds from 284.8 million on September 30, 1984. Animal feeds account for the bulk of U.S. inedible tallow and grease consumption, followed by fatty acids and soap, and a modest amount of lubricants and similar oils.

According to the leading oils trade publication, *Oil World*, world exports of edible and inedible tallow and greases in the 1984/85 season totaled about 2.46 million tonnes, down from 2.60 million in 1983/84. This publication forecast 1985/86 season exports at 2.37 million tonnes.

The prices of competitive oils, including palm oil, dropped sharply early in the second quarter of the 1985/86 season, and bleachable fancy tallow in the Rotterdam market sold at a most unusual premium to palm oil. The more competitively-priced alternative oils were expected to reduce consumption and exports of tallow in the 1985/86 season. The U.S. usually accounts for more than one-half of world exports of tallow and greases, but a retaliatory import quota imposed by the European Community (EC) on the import of tallow from the U.S. for technical purposes, and the non-competitive price situation for tallow, suggest a significant reduction in inedible tallow exports from the U.S. in 1985/86.



World Production of Tallow and Greases (Edible and Inedible) In Thousands of Metric Tons

Year	Argentina	Australia	Brazil	Canada	Colombia	USSR	France	W. Germany	Italy	Japan	Mexico	Netherlands	New Zealand	United Kingdom	United States	Eastern Europe	World Total
1976	301	370	203	216	23	342	205	181	95		29	81	134	145	2,817	136	5,647
1977	312	400	233	217	22	333	230	186	100		31	83	120	152	2,770	131	5,675
1978	342	397	214	270	23	343	232	205	95		33	88	98	153	2,638	135	5,644
1979	331	334	200	203	26	345	243	221	100		32	90	112	188	3,058	137	6,171
1980	308	309	200	204	29	340	220	235	105		33	94	118	235	3,157	132	6,273
1981	313	309	210	213	33	355	205	235	106	193	52	96	125	218	3,290	140	6,357
1982	276	316	220	220	32	350	188	232	96	196	47	91	125	218	3,228	138	6,241
1983	255	308	230	215	28	355	192	235	94	197	64	89	138	222	3,351	132	6,370
1984[1]	275	318	210	208	28	360	192	250	94	200	69	96	129	240	3,278	138	6,351
1985[2]	286	282	220	202	29	370	190	255	94	202	72	100	134	200	3,261	135	6,301

[1] Preliminary. [2] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T.672

Salient Statistics of Tallow and Greases (Inedible) in the United States In Millions of Pounds

	Supply					Utilization in Nonfood Products						Wholesale Prices, ¢ Per Lb.		
													Inedible Chicago	
Year	Production	Imports	Stocks Jan. 1	Total	Exports & Shipments	Soap	Feed	Fatty Acids	Lubricants & Oils	Other	Total[2]	Edible, (Loose) Chicago	No. 1	Bleachable Fancy
1976	5,675	9	277	5,961	2,331	764	1,464	817	142	164	3,367	16.5	13.2	15.0
1977	6,106	4	355	6,465	2,885	737	1,330	764	128	158	3,180	21.2	13.6	17.1
1978	5,815	3	344	6,162	2,698	695	1,390		—1,099—		3,220	22.8	16.0	19.8
1979	5,836	3	347	6,183	2,795	663	1,239		—1,215—		3,117	26.2	18.8	
1980	5,916	—	390	6,306	3,254	666	1,246	813	69	177	2,979	21.6	14.3	
1981	6,124	0	413	6,537	3,134	520	1,323				2,985	31.1	15.3	
1982	6,026	0	451	6,477	3,035	545	1,418				2,898		12.8	
1983[1]	6,129	0	368	6,497	2,931	574	1,397				2,813		13.5	
1984[4]	5,881	0	322	6,203	2,325	623	1,346				2,941		17.5	
1985[4]	5,827	0	368	6,195		535	1,361				2,781			
1986[4]			362											

[1] Preliminary. [2] Includes small amounts used in drying-oil products in some years. [3] Estimate. *Sources: Economic Research Service, U.S.D.A.; Bureau of Labor Statistics* T.673

Edible Tallow: Supply, Disappearance, and Price, U.S. In Million Pounds, Rendered Basis

	Supply			Disappearance					
Calendar year	Stocks Jan. 1	Production	Total	Domestic	Exports	Total	Direct use	Per capita Lb.	Price[1] ¢ Lb.
1978	42	835	877	802	20	822			22.8
1979	55	905	960	853	50	903	87	3.9	26.2
1980	57	1,043	1,101	957	88	1,047	242	4.2	21.6
1981	56	1,130	1,188	992	142	1,134	225	4.3	30.3
1982	54	1,110	1,163	1,030	75	1,106	303	5.0	N.A.
1983[2]	59	1,260	1,319	1,166	107	1,273	480	5.0	N.A.
1984[2]	43								

[1] Loose, average wholesale, Chicago. [2] Preliminary. *Source: Economic Research Service, U.S.D.A.* T.673A

Average Wholesale Price of Tallow, Inedible, Packers (Prime), C.A.F. Chicago In Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1976	14.1	14.4	15.0	13.7	13.9	14.2	14.8	14.2	14.4	14.1	14.1	14.3	14.3
1977	14.7	14.9	15.9	17.6	19.2	17.6	16.9	15.3	15.0	15.5	15.3	15.0	16.1
1978	15.4	16.0	17.3	17.8	17.9	18.2	18.9	18.7	19.5	19.8	20.1	18.8	18.4
1979	19.8	20.8	22.9	24.8	24.1	21.7	22.8	22.4	22.6	20.9	18.4	18.2	21.6
1980	18.1	16.7	17.5	18.0	16.8	15.2	16.8	19.0	19.4	17.5	20.4	19.0	17.9
1981	15.8	15.8	16.0	16.5	15.6	16.0	15.2	15.0	14.5	14.5	13.9	13.6	13.6
1982	13.4	13.4	14.1	14.4	14.5	14.3	13.6	12.0	11.4	11.0	11.0	10.8	12.8
1983	11.4	12.0	12.5	13.6	13.8	13.2	12.1	13.7	14.9	14.2	14.8	15.1	13.4
1984	16.0	16.0	16.8	17.0	19.1	20.0	17.1	16.2	16.9	17.9	19.0	17.5	17.5
1985	17.5	17.5	17.5	17.7	16.1	14.3	13.6	12.1	11.4	11.5	11.3	11.5	14.3

Source: Economic Research Service, U.S.D.A. T.674

Tea

Total production of tea by 15 countries that are the world's principal growers amounted to an estimated 2.24 million tonnes in 1985, 3 percent greater than the 2.17 million tonnes harvested a year earlier. India, whose 30-percent share of total output leads all others, produced 675,000 tonnes, 5 percent higher than the year before and an all-time record level for any single tea-raising country. India's year-over-year gain was attributable, in the main, to favorable growing conditions in northern India, where nearly 75 percent of the country's output originates, as well as to increased usage of fertilizers and pesticides, and improved managerial practices.

In the People's Republic of China, the world's second-largest grower, tea production in 1985 was estimated at 390,000 tonnes, down 6 percent from 1984's record level of 413,000 tonnes. The decline was attributed to unfavorable weather conditions during early 1985. On the other hand, in Sri Lanka the weather was favorable to tea cultivation during 1985 and growers as a group increased their application of fertilizers. These two factors combined to raise Sri Lanka's harvest to an estimated 215,000 tonnes in 1985, some 3 percent more than in 1984. Similarly, warm and wet weather during Kenya's growing season lifted total output to a record 150,000 tonnes, a figure 29 percent above that of the drought-reduced harvest of 1984.

U.S. imports of tea increased 2.5 percent in 1985 to 90,491 tonnes from 88,254 tonnes in 1984. U.S. imports of tea from some traditional suppliers, such as Sri Lanka and Kenya, have declined significantly over a period of several years. Argentina has surfaced as the largest supplier to the U.S. market in response to increased demand for lesser quality, lower-priced teas. About 80 percent of U.S. consumption is in iced tea, which faces strong competition from other beverages such as soft drinks and beer. Herbal teas have also provided increasing competition. World tea prices in 1985 declined from the record-high levels of 1984 as supplies moved into closer balance with demand following several years of stock drawdowns.

World Tea Production, in Major Producing Countries In Thousands of Metric Tons

Year	Argentina	China	Sri-Lanka (Ceylon)	India	Indonesia	Iran	Japan	Kenya	Malawi	Mozambique	Bangladesh	Taiwan	Turkey	Tanzania	USSR	World Total
1972	24.0	N.A.	213.5	456.0	49.8	22.0	94.8	53.3	20.7	18.7	23.8	26.2	46.5		71.3	1,197
1973	23.1	N.A.	211.3	472.0	54.5	23.0	101.0	56.6	23.6	18.8	27.6	28.6	43.2		74.8	1,236
1974	26.0	N.A.	204.0	492.1	51.7	25.0	95.2	53.4	23.3	17.6	32.2	24.2	42.8		80.8	1,245
1975	29.0	N.A.	213.7	487.1	56.8	23.0	105.4	56.7	26.2	13.1	29.0	26.1	55.6		86.3	1,284
1976	33.0	N.A.	196.6	511.8	61.1	22.0	100.1	62.0	28.3	13.8	33.3	24.8	59.5		92.0	1,316
1977	21.6	252.0	208.6	556.3	64.3	24.0	102.3	86.3	31.7	17.0	38.0	26.3	84.1		106.4	1,709
1978	26.3	268.0	199.0	563.8	73.2	23.0	104.7	93.4	31.7	18.1	38.0	25.9	86.5		111.2	1,755
1979	32.1	277.1	206.4	551.9	73.3	21.0	98.0	93.3	32.6	19.7	35.9	27.1	102.0		117.6	1,782
1980	40.0	304.0	191.4	569.6	98.7	20.0	102.3	89.9	29.9	22.3	40.0	24.5	95.9	17.1	129.8	1,857
1981	33.0	343.0	210.1	560.0	110.2	20.0	102.3	90.9	32.0	23.3	41.3	25.2	42.6	15.9	136.5	1,870
1982	40.0	397.0	187.8	560.7	91.7	25.0	98.5	96.0	38.5	25.8	40.9	24.1	68.0	16.2	139.8	1,939
1983	45.0	401.0	179.3	589.0	115.0	25.0	102.7	119.7	32.0	12.0	43.7	24.3	101.0	15.6	145.6	2,044
1984[1]	46.0	414.0	208.1	645.1	126.4	25.0	92.5	116.2	37.5	14.1	38.2	24.4	113.7	16.5	148.0	2,171
1985[2]	46.0	440.0	214.1	657.3	130.0	25.0	100.0	147.2	40.0	15.0	43.4	24.5	110.0	16.5	150.0	2,266

T 677

[1] Preliminary. [2] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.*

World Tea Exports from Producing Countries In Thousands of Metric Tons

Year	Sri Lanka (Ceylon)	China	India	Indonesia	Japan	Malaysia	Bangladesh	Taiwan	Total Asia	Kenya	Mozambique	Malawi	Total Africa	Argentina	Grand Total
1972	190.1	42.0	209.8	38.5	1.9	.8	13.2	21.3	535.8	47.4	18.4	19.9	129.3	18.9	688.7
1973	205.5	50.2	188.2	35.6	2.2	.6	20.3	21.1	547.0	51.5	17.9	22.1	137.4	18.0	709.0
1974	185.1	63.6	205.9	50.2	1.8	.6	21.2	17.2	563.6	49.6	17.2	23.8	134.3	24.1	728.3
1975	212.4	61.3	219.4	46.0	2.2	.5	24.1	20.1	592.3	52.6	12.2	24.2	132.6	17.4	747.5
1976	199.7	61.2	237.3	47.5	3.2	.5	30.7	21.1	608.7	59.3	12.9	29.6	142.2	25.1	782.7
1977	185.5	81.8	229.6	51.3	3.5	.5	26.0	20.8	611.1	70.2	12.9	29.9	158.6	26.9	803.1
1978	192.6	86.9	176.1	56.2	3.4	.6	30.9	20.4	576.7	85.0	16.7	30.6	178.1	31.0	795.1
1979	187.5	106.8	199.6	53.6	3.1	.6	31.9	19.3	616.0	94.0	18.2	31.0	180.5	29.6	834.9
1980	184.5	108.0	224.0	74.2	2.7	.6	31.0	18.2	657.1	74.8	18.0	31.3	156.4	33.5	856.1
1981	182.8	92.0	241.2	71.3	2.7	.2	29.2	15.9	648.5	75.6	18.0	31.5	159.6	25.8	842.8
1982	181.1	115.8	189.9	63.7	2.5	.3	34.4	10.1	605.6	80.4	18.0	37.1	172.2	33.1	820.6
1983	157.9	136.9	208.5	68.6	2.1	.3	30.0	11.6	625.3	100.6	13.3	36.1	191.5	44.7	870.1
1984[1]	204.2	151.3	217.0	85.7	2.8	.3	23.1	11.9	705.9	91.3	7.7	37.1	179.6	43.2	938.6

T 678

[1] Preliminary. *Source: Foreign Agricultural Service, U.S.D.A.*

Salient Statistics of Tea in the United States In Thousands of Metric Tons

	U.S. Imports from:													Sales by U.S. Retail Stores				
Year	Brazil	Argen-tina	Sri Lanka (Ceylon)	China	India	Indo-nesia	Japan	Kenya[2]	Mozam-bique	Nether-lands	Malawi	Tai-wan	Total	Tea Bags	Loose Tea	Inst-ant Tea	Inst-ant Mixes	Total Quan-tity
1973		1.1	19.7	.6	8.2	13.3	2.1	8.4	3.1	5.1	2.7	3.2	78.9	30.8	5.1	19.4	8.2	63.5
1974		1.8	19.6	1.2	7.5	13.3	1.9	7.9	3.1	6.4	3.2	3.3	80.9	31.5	4.6	18.7	8.7	63.5
1975		1.8	18.3	2.0	6.8	12.9	1.7	8.4	2.7	2.4	2.2	4.0	72.3	31.6	4.1	19.8	8.0	63.5
1976		2.1	21.1	3.0	8.0	11.6	3.2	10.7	2.0	1.3	4.1	4.8	82.2	33.8	4.2	19.6	8.5	66.2
1977		4.9	16.6	4.2	12.3	14.7	3.4	9.5	2.3	3.0	5.6	5.7	92.1	36.2	5.2	20.0	10.7	72.1
1978	2.0	6.7	14.0	2.9	1.7	10.7	3.2	8.2	1.4	4.1	4.2	3.0	68.8	35.5	4.4	18.7	11.7	70.3
1979	3.5	7.0	14.7	6.5	5.9	11.2	2.9	9.4	2.4	4.7	2.5	2.3	79.2	36.1	4.1	18.0	11.7	69.9
1980	2.8	10.3	12.2	8.0	4.2	13.9	2.5	6.8	5.0	5.9	2.1	3.1	83.8	37.9	3.7	17.1	12.1	70.8
1981	3.5	10.0	13.0	7.1	4.7	14.7	2.5	5.5	4.2	7.7	2.4	4.2	86.3	39.7	3.3	15.9	12.0	70.8
1982	3.5	12.2	12.4	6.9	2.9	14.0	2.4	6.9	4.0	6.1	1.4	3.8	82.8	40.6	3.0	14.9	11.7	70.3
1983	3.9	15.1	8.1	6.4	2.9	14.4	1.8	4.5	3.5	4.7	1.3	3.5	77.3	41.9	2.7	14.9	13.1	72.6
1984	3.6	18.1	9.4	9.6	3.8	15.5	2.1	3.9	2.2	4.8	.9	6.3	88.3	40.7	2.3	13.3	12.2	64.5
1985[1]	4.3	15.2	9.8	10.9	2.9	12.8	2.1	4.2	.7	4.2	.9	2.2	79.2	41.0	2.1	12.6	11.4	67.1

[1] Preliminary. *Sources: Statistical Reporting Service, U.S.D.A.; Bureau of Census* T.675

United States Imports of Tea In Thousands of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1971	13,226	12,360	15,073	18,078	15,128	16,529	20,150	25,141	19,427	4,631	3,828	11,862	175,432
1972	12,914	16,907	10,276	10,165	12,885	16,563	10,835	11,581	12,830	14,348	11,460	10,731	151,495
1973	15,481	14,295	15,399	14,107	17,423	12,425	13,660	12,614	12,527	16,878	16,506	11,997	173,314
1974	11,675	14,974	16,583	17,177	18,122	17,489	21,788	16,432	13,954	10,460	7,735	11,844	178,326
1975	14,297	12,200	15,486	13,648	14,694	12,170	9,915	11,276	12,404	17,594	13,940	11,843	159,287
1976	11,842	12,309	15,779	15,805	13,053	13,893	14,259	15,051	19,224	15,683	16,133	18,273	181,304
1977	16,059	15,064	22,389	23,302	27,345	22,335	22,252	15,932	9,994	9,702	7,213	10,924	203,012
1978	9,023	12,791	18,648	15,450	17,523	8,286	13,141	13,788	9,390	12,502	8,877	12,332	151,751
1979	14,797	10,568	15,584	13,822	13,556	14,352	13,361	14,809	15,841	16,992	15,432	15,578	174,690
1980	18,749	17,562	17,456	18,501	15,871	16,460	14,099	11,883	11,870	14,271	12,126	15,936	184,786
1981	12,891	18,354	14,696	19,220	18,990	17,736	14,586	19,128	13,205	15,855	13,473	12,121	190,254
1982	15,055	15,464	13,787	13,176	16,518	14,309	14,286	15,598	17,425	16,207	18,222	12,567	182,613
1983	13,748	15,092	14,170	15,799	16,018	10,931	12,159	11,747	15,025	16,531	13,600	15,631	170,451
1984	15,599	15,956	20,235	18,031	17,546	12,803	22,287	12,023	14,169	20,946	12,386	12,585	194,565
1985	16,238	13,856	15,491	13,342	15,337	15,054	15,586	12,745	14,942	14,878	13,656	13,493	174,617
1986	16,923	13,219											

Source: Department of Commerce T.679

London Auction Tea Prices In U.S. Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1980	102.4	105.7	102.4	100.4	104.2	106.8	100.9	102.5	95.1	92.4	101.3	98.1	101.0
1981	98.6	101.2	100.5	97.9	94.7	90.4	84.6	80.0	81.7	87.4	91.3	91.6	91.7
1982	92.0	94.2	88.5	84.7	84.8	83.3	79.9	80.8	86.7	91.4	89.8	96.1	87.7
1983	98.5	93.1	89.8	92.1	91.0	85.2	86.6	90.6	99.0	117.4	158.8	163.8	105.5
1984	194.2	169.0	166.7	160.4	161.3	144.8	130.3	133.2	154.1	164.2	155.2	147.9	156.8
1985	143.1	127.3	110.4	98.6	75.2	74.6	71.5	72.2	73.3	78.7	80.2	75.3	90.0
1986	82.1	85.7	91.5	91.3									

Source: International Tea Committee

Tin

World mine production of tin in 1985 was about 4 percent below 1984 output, according to a preliminary estimate of the U.S. Bureau of Mines. Malaysia remained the world's largest producer, accounting for 20 percent of estimated total production, followed by the Soviet Union—17 percent; and Indonesia, Thailand and Bolivia, each with around 10 percent. U.S. production of tin is negligible, but about 25 percent of the tin consumed in the U.S. is derived from secondary material at 5 detinning plants and 196 secondary nonferrous metal processing plants, most of which are located in the East.

About 77 percent of apparent U.S. tin consumption is accounted for by net imports. U. S. imports of tin metal for consumption decreased 18 percent in 1985 from the 1984 level, and imports of concentrates (tin content), which are much less important than metal imports, dropped 50 percent in 1985 after having risen sharply in 1984. Imports of concentrates from Peru, the major U.S. supplier, dropped sharply in 1985 after having risen in the previous year, but accounted for 92 percent of total concentrate imports. Brazil accounted for the largest share of tin metal imports into the U.S. in 1985—33 percent. Thailand accounted for 19 percent of total imports, followed by Indonesia and China with about 14 percent each. Imports of tin metal from Bolivia dropped sharply in 1985.

Reported U.S. consumption of primary tin increased nearly 3 percent in 1985, and secondary tin consumption increased 9 percent. The estimated major uses for tin in 1985 were: cans and containers—20 percent; electrical—19 percent; construction—14 percent; transportation—14 percent; and other uses—33 percent. The major finished products were tinplate and solder, which accounted for 29 and 28 percent, respectively. Tin plate usage in non-packaging areas is said to be growing.

U.S. industry stocks of tin at the end of December 1985 were about 12 percent higher than a year earlier.

The amount of tin in the U.S. stockpile continued well above the 42,674 tonne goal, with total inventory on November 30, 1985 amounting to 185,434 tonnes. The General Services Administration (GSA) continued its daily fixed-price sales of Government stockpile tin in 1985, despite objections by producer countries, until October 24 when they were suspended indefinitely pending resolution of the International Tin Council crisis. Since the daily sales program began on December 1, 1980, a total of 18,169 tonnes had been sold.

Throughout the year, the International Tin Council (ITC) continued imposition of export controls on member producer countries (Malaysia, Indonesia, Thailand, Australia, Nigeria, and Zaire) at 22,000 tonnes per quarter, or 60 percent of their overall production capacity, in an attempt to balance world tin supply and demand.

On October 24, 1985, the ITC announced that it was no longer able to continue its buffer stockpile tin purchasing program to support the price (29.15 Malaysian dollars per kilogram support) under which it had acquired a stockpile total of about 85,000 tonnes. This event caused the London Metal Exchange (LME) to suspend tin trading. Trading on the Kuala Lumpur Tin Market, a physical tin market in Malaysia, was also halted (until Feb. 3, 1986). On March 12, 1986, the LME settled all outstanding tin contracts, a move that effectively suspends the LME tin contract. Several brokers claimed massive losses due to the action and several banks and brokers later initiated litigation against the LME. Late in March 1986, the ITC announced an end to all export and production controls for its 22 member nations, clearing the way for these countries to dispose of 35,000 to 40,000 tonnes of tin in concentrates then held at mineheads. The Sixth International Tin Agreement expires June 30, 1987, but economic provisions remain suspended, even though under its provisions the ITC must review the suspension of buffer stock operations every six weeks.

The threat of buffer stock tin sales by banks holding this tin as collateral continued as a depressing market influence even though over the longer term recent very low prices suggested significant production cutbacks by producing nations.

On March 14, 1986, the *Metals Week* composite price for Straits tin for New York delivery was US $4.24 per pound compared with a price of $6.06 on October 24, 1985, when the ITC exhausted funds to support the tin price.

World Mine Production of Tin (Content of Ore) In Thousands of Metric Tons

Year	Australia	Bolivia[1]	Brazil	Burma	China[3]	Indonesia	Japan	Malaysia	Nigeria	Rwanda	South Africa	Thailand	United Kingdom	USSR	Zaire (Congo)	World Total
1980	11.6	27.3	6.4	1.3	14.6	32.5	.5	61.4	2.6	2.1	2.9	33.7	3.0	34.0	3.2	244.7
1981	12.3	29.8	8.3	1.4	15.0	35.4	.6	59.9	3.2	1.8	2.8	31.5	3.9	34.0	3.3	251.9
1982	12.1	26.8	9.3	1.7	15.0	33.8	.5	52.3	2.4	1.7	3.0	26.1	4.2	35.0	3.1	236.1
1983[2]	9.3	25.3	13.4	1.6	15.0	26.6	.6	41.4	1.6	1.5	2.7	19.9	4.0	35.0	3.0	210.7
1984[3]	9.3	21.1	6.0	2.0	15.0	21.5	.5	41.3	1.7	1.1	2.2	21.9	4.6	36.0	3.0	207.8
1985[3]	9.0	19.0	18.0	2.0	15.0	20.0		40.0	1.5			20.0	4.6	35.0	3.0	201.0

[1] Exports. [2] Preliminary. [3] Estimate. *Source: Bureau of Mines* T 682

World Smelter Production of Tin In Thousands of Metric Tons

Year	Australia	Belgium	Bolivia	Brazil	China	Zaire (Congo)	W. Germany	Indonesia	Japan	Malaysia	Nigeria	Portugal	South Africa	Un. Kingdom	United States[1]	USSR	Total
1980	4.8	2.8	18.2	8.8	14.6	.2	2.3	30.5	1.3	71.3	2.7	.9	1.1	5.8	3.0	38.0	250.6
1981	4.3	.1	20.0	7.8	15.0	.5	1.8	32.5	1.3	70.3	2.5	.9	2.6	6.8	2.0	37.0	249.9
1982	3.1	—	19.0	9.3	15.0	.4	.6	29.8	1.3	62.8	2.8	.4	2.9	8.2	3.5	38.0	234.7
1983[2]	2.9	—	14.2	12.7	15.0	.2	.4	29.4	1.3	53.3	1.2	.2	2.7	6.5	2.5	38.0	211.8
1984[3]	2.9	—	16.4	18.1	15.0	.2	.4	22.5	1.4	46.5	1.3	.2	1.5	6.1	4.0	38.5	209.0
1985[3]															3.0		

[1] Imports into the U.S. of tin concentrates (tin content). [2] Preliminary. [3] Estimate. *Source: Bureau of Mines*

T.683

Tin Foreign Trade of the United States In Metric[5] Tons

		Imports (For Consumption)															
		Concentrates[3] (Ore)			Bars, Blocks, Pigs, etc.[4] (Metal)												
Year	Exports (Metal[2])	Total All Ore	Bolivia	Peru	Total All Metal	Australia	Belgium	Bolivia	Brazil	China	Indonesia	Malaysia	Nigeria	Singapore	Thailand	United Kingdom
1976	2,338	5,733	5,733	—	45,055	—	—	1,978	—	—	4,972	26,981	—	15	6,885	284
1977	5,480	6,724	6,667	—	47,774	—	—	3,358	2,380	381	5,294	27,084	2	207	7,780	513
1978	4,692	3,873	3,541	—	46,776	—	155	5,768	1,810	1,571	5,664	23,448	—	230	6,865	468
1979	569	4,529	3,745	—	48,355	—	100	5,387	933	185	5,429	23,448	—	1,070	10,440	550
1980	595	840	528	—	45,982	145	190	5,597	2,031	858	6,477	15,548	770	864	12,414	416
1981	2,361	232	—	232	45,874	552	—	8,277	1,129	2,032	7,096	13,163	520	656	11,967	46
1982	5,769	1,961	192	1,416	27,939	334	10	4,340	2,409	2,632	5,744	2,364	124	600	9,116	55
1983	1,340	969	257	341	34,048	390	45	5,739	5,604	1,938	6,004	4,704	265	1,029	7,436	18
1984[1]	1,429	3,272	271	2,502	41,224	288	137	5,438	10,220	1,640	4,985	6,622	60	781	9,531	583
1985[1]	1,478	1,636	22	1,506	33,830	266	—	1,815	11,021	4,513	4,587	379	—	1,886	6,373	48

[1] Preliminary. [2] Ingots, Pigs & Bars. Excludes re-exports from 1979. [3] Tin content. [4] Also grain, or granulated. *Source: Department of Commerce*

T.684

United States Tin (Pig) Consumption (Total) In Metric Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1976	5,170	4,930	5,825	5,415	5,490	5,965	5,240	5,380	5,680	6,395	5,950	5,700	62,928
1977	5,600	5,500	6,800	5,800	5,800	6,000	5,200	5,800	5,900	5,400	5,000	5,100	60,732
1978	5,400	5,000	5,500	5,200	5,700	5,400	4,600	5,200	5,200	5,300	5,400	4,900	61,531
1979	5,400	5,500	6,400	5,400	5,400	5,300	4,900	4,900	5,000	5,500	5,000	4,600	62,465
1980	5,500	5,300	5,750	5,300	4,600	4,100	3,700	3,900	4,150	4,300	4,050	3,750	56,362
1981	4,300	4,400	4,100	4,600	4,400	4,350	3,900	4,200	3,950	3,900	3,400	2,950	54,373
1982	3,400	3,300	3,750	5,100	5,000	5,100	4,900	4,700	4,700	4,600	4,500	4,400	53,450
1983	4,400	4,700	4,900	4,700	4,700	4,800	4,300	4,600	4,700	4,800	4,400	4,800	55,800
1984[1]	4,600	4,300	5,300	3,900	4,500	4,400	4,100	4,400	4,100	4,000	3,300	3,500	50,400
1985[1]	4,000	3,900	4,600	4,500	4,600	4,400	4,200	3,300	3,200	3,100			

[1] Preliminary. *Source: Bureau of Mines.*

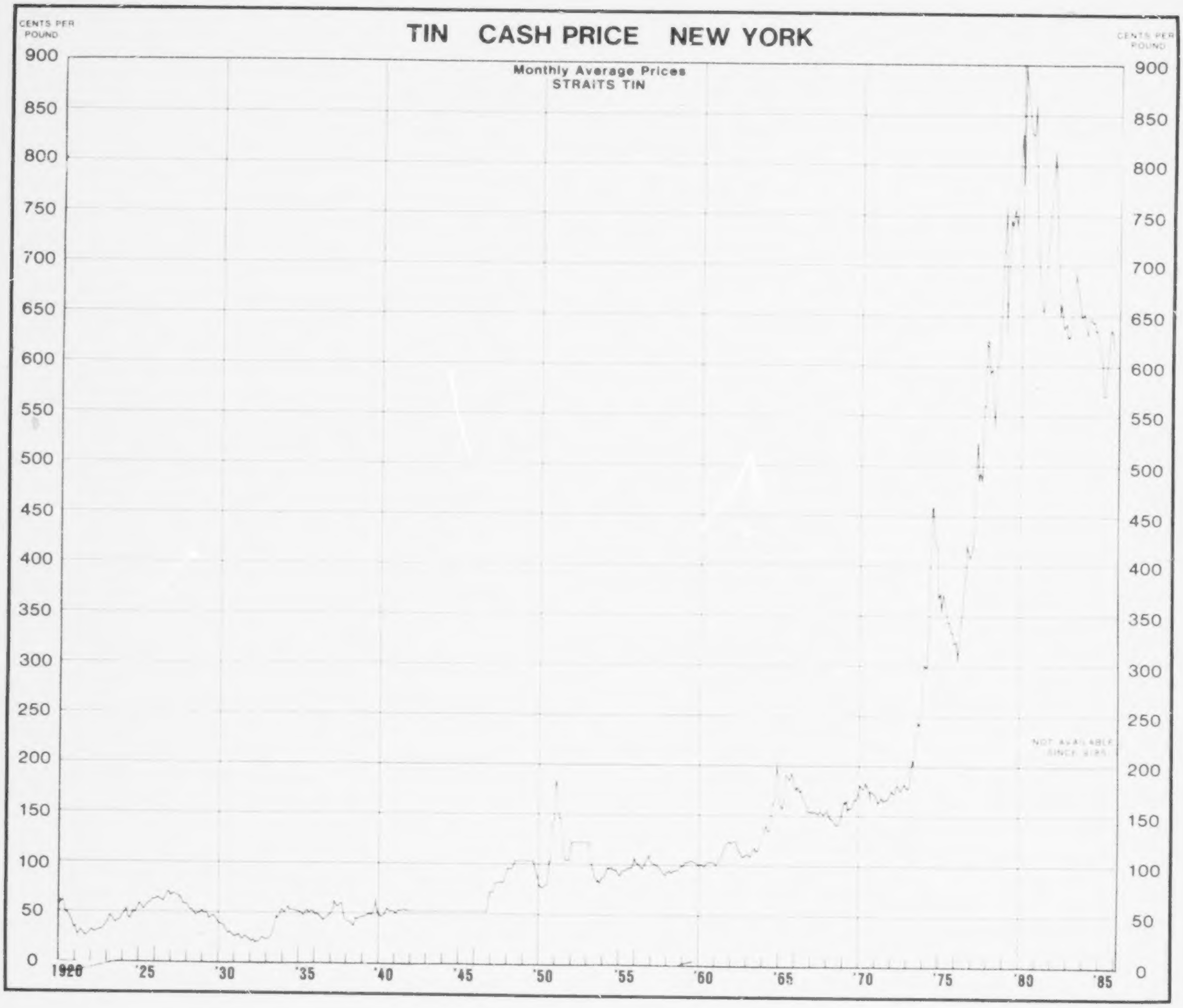
T.681

United States Tin Stocks (Pig—Industrial) In Metric Tons

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1976	9,642	9,395	8,624	9,189	7,855	6,963	8,375	9,623	8,749	7,871	7,929	7,213
1977	7,282	8,032	7,883	5,874	6,157	5,644	4,720	6,305	5,557	5,378	9,124	7,272
1978	8,441	7,626	6,628	6,291	7,785	8,139	7,846	7,817	7,260	5,774	4,975	5,666
1979	5,040	4,594	4,254	5,891	6,097	5,938	6,317	6,270	6,096	5,058	4,901	4,244
1980	4,238	7,720	6,882	7,527	5,443	7,263	6,592	6,544	6,051	5,180	5,208	5,086
1981	5,504	5,968	5,745	5,229	5,725	5,978	6,227	6,465	5,663	5,710	5,325	5,563
1982	5,988	3,872	3,490	3,829	5,222	4,953	4,653	3,888	2,910	2,940	2,970	3,437
1983	3,152	4,609	3,513	3,815	4,026	3,527	3,634	3,931	4,091	3,604	3,074	3,180
1984[1]	3,020	2,968	2,268	2,840	2,646	3,119	2,795	2,688	2,837	2,495	2,512	2,326
1985[1]	2,592	2,766	2,283	2,407	2,228	2,853	3,042	2,762	2,663	2,985	4,047	

[1] Preliminary. *Source: Bureau of Mines*

T.680



Average Price of Straits Tin (Alloyer Price[1]) in New York In Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1973	179.05	192.00	205.90	202.44	209.11	212.27	237.55	243.45	239.50	245.91	262.44	300.99	227.48
1974	298.14	351.54	389.43	440.77	456.88	458.50	426.61	422.99	415.92	365.33	370.96	351.87	395.75
1975	363.76	372.03	366.04	354.10	342.54	342.48	333.32	331.85	322.77	321.95	324.03	303.02	339.83
1976[1]	312.39	326.00	349.07	358.80	377.00	390.30	424.27	411.27	405.40	406.77	414.84	423.25	383.34
1977	470.54	514.16	522.97	485.28	491.93	482.15	518.71	559.51	558.47	619.25	626.16	613.36	538.76
1978	591.19	595.93	557.48	537.85	570.58	600.95	606.21	641.80	679.66	739.69	758.84	695.86	631.34
1979	684.56	724.57	746.14	740.06	745.18	760.14	712.31	739.93	762.03	785.54	801.23	830.88	756.87
1980	836.46	866.39	900.23	872.21	861.84	845.19	836.95	834.61	861.92	832.92	788.67	751.36	840.73
1981	739.94	705.76	691.70	677.38	652.07	652.77	680.22	746.06	777.36	798.70	813.00	801.59	728.05
1982	787.41	749.93	669.51	649.58	662.35	643.00	638.00	636.33	644.33	627.94	627.93	630.18	663.88
1983	648.90	653.89	669.18	692.29	683.36	670.54	663.13	653.10	649.31	650.65	653.02	636.71	660.34
1984	631.89	633.46	645.65	647.52	643.81	644.35	635.01	636.32	631.53	619.08	614.63	605.71	632.41
1985	580.06	569.29	571.21	598.19			636.48	635.30	619.15		N.Q.	N.Q.	604.43
1986	N.Q.	N.Q.											

[1] Prices prior to 1976 are for PROMPT DELIVERY. *Source: American Metal Market*

T.685

Secondary Tin Recovered in the United States In Metric Tons

	Tin Recovered at Detinning Plants															
		Tin Recovered						Tin Recovered by Form of Recovery								
Year	Tinplate Scrap Treated (Ths. Tons)	As Metal	In Compounds[2]	Total	Weight of Tin Compounds Produced	Avg. Quantity of Tin Recov. Per Ton of Tin-Scrap (Kilog.)	Avg. Delivered cost of Tinplate Scrap $ per Metric Ton	Tin Metal	Bronze & Brass	Solder	Type Metal	Babbitt	Anti-Monial Lead	Chemical Compounds	Misc.[3]	Grand Total
1976	685.5	1,195	424	1,619	1,348	2.36		1,467	8,319	4,513	668	495	548	424	12	16,446
1977	667.4	1,376	365	1,741	1,516	2.61		1,668	10,397	4,094	708	694	565	365	12	18,503
1978	714.9	1,324	463	1,787	1,803	2.50	60.04	1,565	12,419	4,363	1,038	521	712	463	19	21,100
1979	841.4	1,536	433	1,969	1,256	2.34	90.73	1,767	12,090	5,282	584	441	867	433	29	21,493
1980	766.9	1,457	321	1,778	1,533	2.32	89.38	1,703	10,402	4,423	525	378	856	321	30	18,638
1981	668.0	1,328	265	1,593	1,220	2.38	102.42	1,587	8,894	3,035	576	261	791	265	29	15,438
1982	464.6	810	447	1,257	1,754	2.37	56.16	1,067	6,971	2,723	222	237	1,015	447	101	12,783
1983	486.5	928	182	1,110	1,284	1.98	60.60	1,180	8,517	3,072	172	185	803	182	94	14,205
1984[1]	492.8	824	301	1,125	1,498	2.24	68.01	1,107	9,146	3,653	142	123	894	301	51	15,417

[1] Preliminary. [2] Tin content. [3] Includes foil, cable lead & terne metal. *Source: Bureau of Mines* T 687

U.S. Consumption of Primary and Secondary Tin In Metric Tons

			Net Receipts							
Year	Net Import Reliance as a % of Apparent Consumption	Industry Stocks Jan. 1[3]	Primary	Secondary	Scrap	Total	Available Supply	Stocks Dec. 31 (Total Available Less Total Processed)	Total Processed	Consumed in Mfg. Pdt's.
1976	85	19,510	49,995	2,019	10,189	62,203	81,713		64,819	62,928
1977	82	16,894	48,215	4,025	10,604	62,844	79,738		62,880	60,732
1978	79	16,858	46,821	2,541	10,499	59,861	76,719		63,135	61,531
1979	80	13,584	50,126	2,636	10,659	63,421	77,005		64,067	62,465
1980	79	7,075	43,545	2,461	7,709	53,715	60,790	3,593	57,197	56,362
1981	77	8,835	41,162	5,692	8,050	54,904	63,739	8,640	55,099	54,373
1982	68	8,717	35,843	6,507	7,830	50,180	58,897	12,328	46,569	46,295
1983	73	7,549	36,494	5,412	7,435	49,341	56,890	11,098	45,792	45,547
1984[2]	74	7,740	39,388	6,096	7,323	52,807	60,547	10,788	49,759	49,441
1985[2]	72									

[1] Preliminary. [2] Estimated. [3] Includes tin in transit in the U.S. *Source: Bureau of Mines* T 686

Consumption of Tin in the United States by Finished Products In Metric Tons of Contained Tin

														Total	
Year	Alloys	Tinplate[2]	Solder	Babbitt	Bronze & Brass	Collap. Tubes & Foil	Tinning	Chemicals[3]	Tin Powder	Type Metal	Bar Tin & Anodes	White Metal	Other	Primary	Secondary
1976		20,766	17,728	2,423	7,656	694	2,308	5,621	1,208	216	758	2,347		51,767	11,161
1977		18,539	17,315	2,093	8,606	787	2,323	5,727	1,287	202	578	1,655		47,596	13,136
1978		17,280	17,770	2,346	9,048	673	2,431	4,557	1,360	171	424	1,484		48,403	13,128
1979	2,428	17,929	18,022	2,243	8,690	686	2,584	4,797	1,435	140	567	1,258	1,686	49,496	12,969
1980	134	16,346	15,618	2,380	7,478	526	2,577	N.A.	1,109	N.A.	486	914	8,794	44,342	12,020
1981	2,435	13,306	15,799	3,844	7,041	561	2,491	4,417	983	52	455	1,201	1,788	40,229	14,144
1982	N.A.	11,134	13,142	1,915	4,400	N.A.	1,887	N.A.	906	N.A.	509	1,177	11,225	33,019	13,276
1983	N.A.	9,462	14,120	2,881	4,583	N.A.	1,759	N.A.	793	N.A.	654	937	10,358	34,301	11,246
1984[1]	N.A.	8,825	17,249	2,684	4,998	N.A.	1,748	N.A.	1,057	N.A.	526	958	11,396	37,819	11,622
1985[4]														38,800	12,700

[1] Preliminary. [2] Includes small quantity of secondary pig tin & tin acquired in chemicals. [3] Including tin oxide. [4] Estimated. *Source: Bureau of Mines*
T 688

Titanium

Global output of titanium sponge in 1985 was estimated at about 99,000 short tons, which represented about 74 percent of capacity. The three principal suppliers are the U.S.S.R. (47 percent of the total), the U.S. (24 percent) and Japan (23 percent).

In the U.S. during 1985, some 24,000 tons of sponge were produced, about the same output as in 1984. Domestic supply was augmented by another 1,900 tons through imports. Production of titanium oxide amounted to 804,000 tons, up slightly (0.6%) from 1984 and imports—virtually all from Japan—came to 186,000 tons, down about 4 percent from 1984. On the demand side, domestic consumption of sponge was 22,000 tons, down about 8 percent from 1984, and exports of scrap were 11,000 tons, higher by more than 50 percent over 1984. Stocks on hand at year's end were also 50 percent greater than in 1984, but employment in reduction plants was unchanged from one year to the next. The year-end price per pound of sponge remained steady in 1985 at $5.55.

In the case of titanium oxide, domestic consumption was 12 percent greater than domestic output in 1985, with the shortfall of supplies covered by imports. Yearend stocks of pigment fell some 22 percent from the previous year, but employment in this segment of the industry was stable at 4,400 workers. The average list price of rutile rose from 75 cents per pound in 1984 to 78 cents in 1985.

Projected output of titanium sponge in the U.S. during 1986 was 26,000 tons, about 8 percent more than in 1985. Imports would have to be the same or slightly higher, in order to satisfy domestic demand estimated at about 28,000 tons. Production of titanium oxide was projected at 815,000 tons, up 14 percent from 1985, and consumption at 915,000 tons; again, sizeable imports would be called for. Rising demand, particularly from the aerospace industry, promised to produce price increases for both sponge and pigment.

Average Titanium Prices in the United States

Year	Ilmenite—54% TiO_2 F.O.B. Atlantic Seaboard—$ per Long Ton	Slag, 85% TiO_2 F.O.B. Richards Bay, South Africa $ Lg. Ton	Ilmenite Domestic F.O.B. Titen, Fla. — $ per Long Ton —	Rutile F.O.B. Eastern Ports, Last Quarter (Spot) $ per Short Ton	Synthetic F.O.B. Mobile, Ala. — $ per Short Ton —	Dec. 31 in $ per pound		
						Titanium Metal Sponge	Titanium Dioxide Pigments Anatase	Titanium Dioxide Rutile
1976	55			510		2.70	0.410	0.465
1977	55			360		2.98	0.435	0.485
1978	50			340		3.28	0.460	0.510
1979	50		—	390		3.98	0.530	0.590
1980	55		—	440	310	7.02	0.570	0.630
1981	70-75		39	450-475	340	7.65	0.690	0.750
1982	70-75	170-180	44-45	450-475	350	5.55	0.690	0.750
1983	70-75	187-198	44-45	400-430	350	5.55	0.690	0.750
1984	70-75	200	44-45	460-490	350	5.55	0.690	0.750
1985[1]		212	50-56		350	5.55-5.85	0.730	0.780

[1] Preliminary. *Source: U.S. Bureau of Mines*

T.690

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World Production of Titanium Ilmenite Concentrates[2] In Thousands of Short Tons

Year	Australia	Brazil	Canada[3]	China	Finland	India	Japan[5]	Malaysia (Exports)	Norway	South Africa[3]	Sri Lanka (Ceylon)	United States[4]	USSR	World Total[2]
1977	1,139	14.6	763.2	—	137.5	151.4	1.4	169.4	913.3	—	37.6	638.5	440.0	4,418
1978	1,383	22.1	937.0	N.A.	145.4	178.1	.2	205.9	845.5	100.0	36.4	589.8	450.0	4,912
1979	1,327	14.5	525.8	N.A.	131.9	161.9	.2	220.3	903.7	316.0	61.0	639.3	450.0	4,752
1980	1,553	18.6	934.4	N.A.	175.3	185.1	N.A.	208.3	912.5	379.0	37.4	556.6	460.0	5,420
1981	1,478	21.9	836.9	150.0	178.0	179.1	N.A.	190.4	724.9	408.0	88.2	542.4	470.0	5,268
1982	1,289	14.5	737.4	150.0	185.0	168.5	N.A.	111.6	608.2	420.0	75.3	263.4	475.0	4,498
1983[1]	998.2	53.1	700.0	154.0	180.7	165.0	N.A.	245.5	599.9	460.0	90.1	N.A.	480.0	4,127
1984[6]	1,231	55.0	800.0	154.0	184.0	165.0		215.0	606.0	460.0	88.0	N.A.	485.0	4,444
1985[6]	1,340	55	820	155	140	170		200	700	460	90		485	4,615

[1] Preliminary. [2] Includes Ti slag containing approx. 70% TiO_2. [3] Represents titanium slag. [4] Includes a mixed product containing ilmenite, leucoxene, & rutile. [5] Includes slag & concentrate. [6] Estimate. *Source: Bureau of Mines*

T.692

World Production of Titanium Rutile Concentrates In Short Tons

Year	South Africa	Australia	USSR	Brazil	Sierra Leone	India	Sri Lanka (Ceylon)	United States	World Total
1977	5,000	358,561	10,000	141	—	6,053	1,078	N.A.	380,833
1978	20,000	283,376	10,000	402	—	6,239	12,673	N.A.	332,690
1979	46,000	302,620	11,000	484	8,267	5,445	16,176	N.A.	389,992
1980	53,000	343,639	11,000	472	52,356	5,908	14,097	N.A.	480,472
1981	55,000	254,432	11,000	226	55,992	7,397	14,662	N.A.	398,709
1982	52,000	243,277	11,000	248	52,590	7,385	7,950	N.A.	374,450
1983[1]	62,000	180,089	11,000	1,166	79,146	7,700	9,814	N.A.	350,915
1984[2]	62,000	200,183	11,000	1,200	100,600	7,700	8,800	N.A.	391,483
1985[2]	62,000	200,000			100,000	9,000	10,000	N.A.	392,000

[1] Preliminary. [2] Estimate. *Source: Bureau of Mines*

T.691

World Production of Titanium Sponge Metal & U.S. Consumption of Titanium Concentrates

	Production of Titanium (in short tons) Sponge Metal[1]						U.S. Consumption of Titanium Concentrates, by Products (in short tons) Ilmenite (TiO_2 Content)			Rutile (TiO_2 Content)			
Year	China	USSR	United Kingdom	Japan	United States	Total	Pigments	Misc.	Total	Welding Rod Coatings	Pigments	Misc.	Total
1977		39,000	2,400	7,049	N.A.	—	514,429	6,765	521,194	8,184	136,191	29,465	173,840
1978		39,000	2,400	10,115	N.A.	—	467,410	8,038	475,448	8,427	195,431	41,326	245,184
1979		43,000	2,600	14,000	N.A.	—	475,342	11,886	478,228	9,947	230,776	52,189	292,912
1980		45,000	2,600	21,257	N.A.	—	502,108	11,207	513,315	6,876	211,599	59,407	277,882
1981	2,000	42,000	2,600	27,500	26,419	100,519	501,301	9,721	511,022	6,944	192,779	66,873	266,596
1982	1,500	44,000	2,600	18,600	15,600	82,300	345,618	6,775	352,393	5,275	184,403	35,435	225,113
1983	2,000	45,000	2,000	11,600	13,966	74,000	468,279	6,006	474,285	3,649	210,949	35,820	250,418
1984[3]	2,000	46,000	2,500	16,938	24,326	92,000	492,658	6,319	498,977	3,911	231,808	62,920	298,639
1985[2]	2,000	47,000	2,000	23,000	23,258	99,000							

[1] Unconsolidated metal in various forms. [2] Estimated. [3] Preliminary. *Source: Bureau of Mines*

T.689

Salient Statistics of Titanium[4] in the United States In Short Tons

	Ilmenite				Titanium Slag			Rutile		Exports of Titanium Products			
Year	Production (Gross Wt.)	Shipments (TiO_2)	Imports[3]	Stocks Dec. 31 (TiO_2)	Consumption (TiO_2)	Imports[3]	Stocks (TiO_2)	Imports[3]	Stocks Dec. 31 (TiO_2)	Ores & Concentrates	Scrap	Dioxide & Pigments	Ingots, Billets, Etc.
1976	652,404	374,989	168,402	429,801	144,506	171,624	70,242	281,712	143,243	4,802	6,144	20,580	1,065
1977	638,503	331,139	334,990	494,658	106,201	150,564	44,464	123,800	136,935	22,679	3,394	16,336	1,050
1978	589,751	352,842	308,671	510,430	91,490	149,172	75,097	289,617	172,685	N.A.	5,453	39,341	1,340
1979	639,292	389,535	184,478	462,415	106,346	111,210	56,917	283,479	119,947	9,903	4,967	51,456	1,984
1980	556,646	358,181	357,488	584,280	133,933	194,994	127,981	281,605	147,670	17,830	3,300	45,795	3,278
1981	542,357	310,854	236,217	543,114	186,020	268,825	150,706	202,373	153,770	7,297	3,280	62,432	4,203
1982	263,391	145,725	348,366	470,776	168,433	247,845	103,667	163,325	165,762	21,682	4,287	72,823	2,196
1983	N.A.	N.A.	259,328	254,237	127,267	138,708	61,026	111,578	122,189	4,391	5,379	91,702	1,371
1984[1]	N.A.	N.A.	409,605	126,305	152,534	209,839	64,842	180,508	98,648	8,651	4,109	106,124	2,071
1985[2]			506,539			291,828		179,663		27,759	6,760	101,954	2,248

[1] Preliminary. [2] Estimate. [3] For consumption. [4] Natural & synthetic. *Source: Bureau of Mines*

T.693

Tobacco

Total U.S. production of tobacco in 1985 was expected to be 1.53 billion pounds, off 12 percent from the crop in 1984. Effective quotas for flue-cured tobacco were down 9 percent, while those for burley were cut 22 percent, which goes far to explain why acreage under cultivation fell 12 percent, to a low point untouched since the middle 1880s. Although the carry-in from 1984 was up 1 percent, compared with the previous year, the smaller crop in 1985 meant a 2 percent reduction in domestic supplies.

The average price per pound for all tobacco fell by 14 cents in 1985 from 1984's level. Also at least 10 cents and possibly 15 cents of the flue-cured price were rebated to buyers. The decline was the product of lower effective support prices, sluggish demand, slightly lower quality of product, and large (even if reduced) supplies. With respect to demand, cigarette consumption fell about 1 percent in 1985, and usage of cigars and pipe tobacco continued to drop. Furthermore, exports of unmanufactured tobacco were flat for the year at 543 million pounds.

The forecast for 1986 was not especially bright. Weak demand and large supplies continued to dominate the picture. On the demand side, both domestic usage and exports were expected to diminish slightly from 1985's levels, although the forecast for exports could prove wrong, given the substantial weakening of the dollar against major currencies. On the supply side, a good-sized crop of burley was forecast. As for imports, the prospect for 1986 was on the downside, because of a decline in prices of U.S.-grown tobacco, rising prices of foreign tobacco in the wake of the appreciation of foreign currencies against the dollar, and increased loan-stock purchases.

On the legislative front, another effort was made, without success, to eliminate the Tobacco Price Support and Allotment Program. But a law was passed which reduced 1985's burley price-support level 30 cents a pound to $1.488 a pound. Price supports for flue-cured tobacco were lowered 5 cents a pound and another 25 cents will probably be rebated to buyers. The same statute cut the no-net-cost assessment for burley to the maximum of 4 cents a pound. For other tobaccos the assessment ranges between 2 cents and 25 cents per pound.

The requirements for loan-stock purchases in 1985 were as follows: (1) all of the Agricultural Stabilization and Conservations Service's old-crop inventories were offered at year's end at discounts of 90 percent from the October 1984 base prices for 1976–81 crops and of 10 percent for 1982–84 crops; (2) for every pound of old-crop tobacco bought at a 90-percent discount, two pounds of new-crop tobacco had to be bought at the 10-percent discount; and (3) total purchases under the incentive-discount program had to be prorated over all grades, types and crop years. By mid-December 1985, over 40 million pounds of loan stocks had been committed under the program.

World Production of Leaf Tobacco In Thousands of Metric Tons (Farm Sales–Weight[3])

Year	United States	Brazil	Canada	China	USSR	France	Greece	India	Indonesia	Italy	Japan	Pakistan	Philippines	Turkey	World Total[1]
1976	971.0	276.1	81.5	1,370	318.0	61.4	140.0	349.8	88.4	108.6	176.2	60.7	89.0	324.0	6,038
1977	870.0	310.0	104.3	1,389	307.0	43.6	118.9	418.8	83.7	109.7	173.2	72.6	84.3	248.0	5,892
1978	919.8	330.0	115.6	1,452	282.0	50.5	130.3	493.6	82.5	109.7	172.0	76.3	79.2	292.6	6,097
1979	693.3	401.0	78.9	941.4	301.0	50.6	127.2	453.8	141.2	136.6	153.3	69.9	85.3	214.3	5,701
1980	810.9	364.0	107.9	844.8	289.0	46.5	116.8	438.5	185.5	125.5	141.4	71.0	78.2	228.3	5,199
1981	936.3	325.0	112.4	1,497	273.0	42.8	127.4	440.8	109.7	131.0	137.7	67.6	80.9	168.0	5,939
1982	904.7	378.0	70.2	2,179	307.0	44.5	131.4	520.1	111.4	145.0	139.4	68.3	90.4	207.7	6,878
1983	648.2	378.0	111.7	1,400	382.7	44.5	112.6	594.2	130.1	156.0	136.7	65.5	91.7	228.3	6,065
1984[2]	783.8	373.0	90.2	1,500	345.5	35.9	140.2	450.0	118.0	147.0	137.0	78.5	105.2	210.0	6,125
1985[1]	701.9														

[1] Estimated. [2] Preliminary. [3] Farm–Sales–weight is about 10% above dry weight which is normally reported in trade statistics. ~~Source~~: *Source: Foreign Agricultural Service, U.S.D.A.* T.694

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Production and Consumption of Tobacco Products in the United States

Year	Production: Chewing Tobacco: Plug (Million Pounds)	Twist (Million Pounds)	Loose-leaf (Million Pounds)	Total (Million Pounds)	Cigarettes (Billion)	Cigars[2] (Billion)	Smoking Tobacco (Million Lbs.)	Snuff (Million Lbs.)	Consumption[3] Per Capita[4]: Cigars[2] (Number)	Cigarettes (Number)	Cigars[2] (Pounds)	Cigarettes (Pounds)	Smoking Tobacco (Pounds)	Chewing Tobacco (Pounds)	Total Pdt.'s (Pounds)
1977	16.4	2.2	61.3	90.0	665.9	3.93	40.7	24.6	67.9	4,051	1.13	7.21	.65		8.49
1978	15.9	2.1	64.6	94.6	695.9	3.80	36.4	25.1	63.4	3,967	1.05	6.89	.60		8.10
1979	15.3	2.0	71.7	102.3	704.4	3.60	32.8	23.7	56.0	3,861	.92	7.00	.50		8.12
1980	17.3	1.9	72.1	106.0	714.1	3.45	32.2	24.3	51.1	3,851	.84	6.79	.48		7.98
1981	17.9	1.8	70.3	90.0[5]	736.5	3.43	30.3	42.5[5]	48.9	3,840	.81	6.53	.46	1.13	7.60
1982	15.7	1.7	73.0	90.4	694.2	3.20	28.3	43.8	45.3	3,753	.74	6.48	.42	1.09	7.49
1983	14.1	1.7	71.0	86.8	667.0	3.14	28.0	46.7	43.9	3,502	.72	6.21	.41	1.05	7.20
1984	12.7	1.7	74.4	88.8	668.8	3.13	24.5	49.4	42.0	3,461	.69	5.91	.36	1.05	6.87
1985[1]	11.4	1.5	74.0	86.9	665.3	2.83	22.1	48.8	38.4	3,378	.63	5.74	.32	1.01	6.65

[1] Preliminary. [2] Large cigars & cigarillos. [3] Consumption of tax-paid tobacco products; Represents unstemmed equivalent of tobacco used in the manufacture of these products. [4] 18 years old & over. [5] New classifications. *Sources: Bureau of the Census; Internal Revenue Service*

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Production of Tobacco in the United States In Millions of Pounds

Year	Conn.	Florida	Georgia	Indiana	Kentucky	Maryland	Massachusetts	North Car.	Ohio	Pa.	South Car.	Tenn.	Virginia	Wisconsin	W Virg.
1977	5.6	24.8	134.9	16.6	452.0	30.1	1.9	744.5	22.7	26.2	138.7	136.7	143.0	24.4	3.2
1978	5.0	22.1	125.7	15.5	469.7	30.6	1.5	849.7	22.5	25.2	150.5	142.1	135.2	20.3	2.7
1979	4.9	23.2	101.0	11.9	343.1	22.0	1.5	621.4	14.1	17.7	117.7	104.8	109.6	25.1	1.7
1980	5.3	20.4	110.6	16.8	420.7	25.3	1.9	762.4	20.0	24.7	125.5	111.9	106.9	26.0	1.8
1981	5.6	22.8	121.0	18.8	509.6	33.0	2.0	795.9	22.9	27.3	149.6	161.5	157.8	26.4	2.4
1982	4.2	21.0	105.6	20.2	589.4	37.5	.9	700.7	31.9	25.9	124.2	178.2	125.4	20.1	3.6
1983	3.4	17.6	96.4	13.0	324.6	29.7	.8	546.9	17.7	22.0	112.9	118.2	99.1	16.7	3.8
1984	2.8	17.9	85.5	18.8	530.1	30.4	.8	590.0	26.5	22.4	105.5	154.6	115.9	16.4	4.5
1985[1]	3.3	16.3	82.1	16.3	446.6	28.4	.8	557.5	18.9	21.9	98.9	138.5	91.7	16.2	4.2

[1] Preliminary, December estimate. *Source: Crop Reporting Board, U.S.D.A.*

T 696

Salient Statistics of Tobacco in the United States

Year	Acres Harvested 1,000 Acres	Yield Per Acre Lbs.	Production Million Lbs.	Farm Price ¢ Lb.	Farm Value Mil. $	Tobacco (July–June) Exports[2] (Mil. Lbs.)	Tobacco Imports[3] (Mil. Lbs.)	U.S. Exports of Cigarettes (Millions)	Cigars & Cheroots (Millions)	Chewing Tobacco & Snuff (Metric Tons)	Smoking Tobacco[6] (Metric Tons)	Stocks of Leaf Tobacco[4] All Types Jan. 1 (Billion Pounds)	April 1	July 1	Oct. 1
1977	965.8	1,982	1,914	118.6	2,268	617.0	335.7	66,845	107	43	4,844	4,798	4,797	4,431	4,710
1978	963.7	2,101	2,025	132.4	2,679	671.9	359.7	74,359	166	47	12,639	5,008	4,781	4,451	4,728
1979	827.7	1,844	1,527	141.1	2,154	617.4	398.1	79,717	177	43	8,289	5,071	4,914	4,518	4,740
1980	920.5	1,939	1,786	152.3	2,720	553.4	439.8	81,998	354	124	6,103	4,974	4,608	4,284	4,548
1981	976.0	2,113	2,064	170.6	3,520	584.9	384.9	82,582	181	191	9,105	4,850	4,617	4,285	4,699
1982	912.7	2,185	1,994	176.4	3,517	553.4	434.0	73,585	181	887	10,345	5,080	4,909	4,675	5,034
1983	789.2	1,811	1,429	174.7	2,495	584.9	515.9	60,698	130	1,073	15,036	5,367	5,288	4,900	5,209
1984	791.7	2,183	1,728	180.7	3,120	526.5	425.1	56,517	104	1,162		5,357	5,247	4,987	5,186
1985[1]	701.0	2,207	1,547	165.0	2,518	541.6		58,900	101			5,444	5,186		

[1] Preliminary. [2] Domestic. [3] For consumption. [4] Owned by dealer & mfgrs., converted to a farm-sales weight equivalent. [5] Farmers' intentions to plant, MARCH 1. [6] In packages & in bulk & other. *Source: Agricultural Marketing Service, U.S.D.A.*

T 700

Tobacco Production in the U.S., by Types In Million Pounds (Farm–Sales Weight)

Types	11-14	31	32	21	22-23	35-36	37	41	42-44	72	51-52	54-55	61
1977	1,130	617	30.1	7.2	45.2	20.4	.8	26.2	3.6	.1	2.5	24.4	5.3
1978	1,232	626	30.6	6.8	51.4	22.2	.9	25.2	3.0	.1	2.6	20.3	3.8
1979	946	446	22.0	5.4	39.6	16.1	.6	17.7	2.0	.1	2.4	25.1	4.0
1980	1,086	561	26.2	3.6	32.7	16.2	.4	24.7	2.4	.1	2.6	26.0	4.5
1981	1,170	730	46.4	5.2	32.4	15.7	.7	27.3	2.4	.1	3.5	26.4	4.1
1982	1,006	822	42.0	5.5	47.7	19.9	.7	21.4	3.5		3.5	20.1	1.6
1983	821.3	481.4	37.4	4.6	32.5	14.3	.4	14.2	1.9		2.5	16.7	1.7
1984	864.6	712.2	38.1	6.1	50.5	19.0	.6	14.6	2.2		1.9	16.4	1.7
1985[1]	800.4	610.4	34.7	4.4	43.9	15.7	.2	15.6	1.7		2.1	16.2	2.1

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.*

T.701

TOBACCO

U.S. Exports of Unmanufactured Tobacco In Millions of Pounds (Declared Weight)

Year	Australia	Belg.-Luxem.	Denmark	Egypt	France	W. Germany	Thailand	Ireland	Japan	Netherlands	Norway	Italy	Sweden	Switzerland	United Kingdom	Total U.S. Exports
1977	14.2	10.4	16.9		6.3	78.9	16.0	5.4	135.4	30.5	6.0	40.6	11.8	28.8	46.8	628.6
1978	12.4	16.9	27.1	24.5	9.8	53.2	18.2	5.3	102.3	34.2	4.2	41.0	17.5	26.2	148.8	700.0
1979	12.4	5.4	16.4	3.8	11.5	67.7	18.8	6.9	95.9	29.3	5.7	34.8	13.7	19.3	68.2	567.4
1980	13.4	7.9	17.5	17.4	4.5	100.7	22.6	3.6	82.1	44.9	6.8	30.7	15.4	20.1	32.5	598.7
1981	12.6	9.5	11.1	16.1	6.1	83.2	18.4	3.9	117.0	28.6	4.2	26.5	9.9	22.2	39.4	584.5
1982	10.1	15.2	16.8	22.0	5.3	68.2	27.7	4.7	110.3	25.1	3.6	28.1	8.7	26.7	30.7	572.0
1983	9.7	9.6	20.2	21.6	7.3	58.0	9.1	3.2	114.1	28.4	5.7	32.2	12.4	16.8	27.8	524.4
1984	8.2	9.4	19.8	37.4	5.1	66.0	14.6	8.0	92.1	22.3	4.7	31.3	11.5	25.3	31.8	542.7
1985[1]	7.3	11.5	16.2	41.2	9.9	76.7	17.8	7.3	102.0	20.9	3.3	28.7	15.8	23.9	18.4	548.9

[1] Preliminary. *Source: Bureau of the Census* T.702

U.S. Salient Statistics for Flue-Cured Tobacco (Types 11–14)

Crop Year	Acres Harvested 1,000	Yield Acre 100 Lbs.	Marketings	Stocks, July 1	Total Supply	Exports	Dom. Disappearance	Total Disappearance	Farm Price ¢ Lb.	Crop Value Mil. $	Parity Price[2]	Price Support Level	Placed Under Gov't Loan	Under Loan July 1
			Millions of Pounds								¢ Lb.		Mil. Lb.	
1977	589.3	19.2	1,124	2,075	3,199	539	608	1,147	117.6	1,329	162.0	113.8	195.6	556.9
1978	602.1	20.5	1,206	2,052	3,258	599	584	1,183	135.0	1,663	176.0	121.0	64.1	534.0
1979	502.8	18.8	946	2,075	3,021	520	563	1,083	140.0	1,324	203.0	129.3	72.0	564.0
1980	555.1	19.6	1,086	1,965	3,052	509	530	1,039	144.5	1,569	222.0	141.5	137.2	554.4
1981	540.6	21.6	1,144	2,013	3,157	523	489	1,012	166.4	1,947		158.7	105.9	595.8
1982	472.3	21.3	994	2,145	3,139	456	479	935	178.5	1,774		169.9	259.9	518.7
1983–4	409.8	20.0	855	2,205	3,060	453	442	894	177.9	1,521		169.9	194.8	688.4
1984–5	392.0	22.1	850	2,165	3,015	481	454	935	181.1	1,539		169.9	159.2	797.5
1985–6[1]	358.1	22.4	792	2,080	2,872	480	420	900	171.9	1,361		169.9	132.2	
1986–7[3]	336.0	20.5	710	1,972	2,682									

[1] Preliminary. [2] As of applicable date when support level was computed. [3] Estimate. *Source: Agricultural Marketing Service, U.S.D.A.* T.697

U.S. Salient Statistics for Burley Tobacco (Type 31)

Crop Year	Acres Harvested 1,000	Yield Per Acre 100 Lbs.	Marketings	Stocks, Oct. 1	Total Supply	Exports	Dom. Disappearance	Total Disappearance	Farm Price ¢ Lb.	Crop Value Mil. $	Parity Price[2]	Support Level	Placed Under Gov't Loan	Under Loan on Oct. 1
			Millions of Pounds								¢ Lb.		Mil. Lb.	
1977	268.6	23.0	613	1,217	1,830	117	495	611	120.0	741	166.0	117.3	57.0	54.9
1978	261.4	24.0	618	1,218	1,836	121	503	624	131.2	822	184.0	124.7	67.7	113.5
1979	238.1	18.7	446	1,212	1,658	133	499	632	145.2	700	210.0	133.3	7.3	155.4
1980	276.6	20.3	558	1,026	1,583	106	478	583	165.9	930	236.0	145.9	.0	66.3
1981	331.2	22.0	726	1,000	1,726	141	464	605	180.7	1,318		163.6	.8	0
1982	346.2	23.7	777	1,121	1,898	135	444	579	181.0	1,406		175.1	269.2	.7
1983–4	292.6	16.5	527	1,319	1,845	112	389	501	177.3	934		175.1	255.6	226.1
1984–5	315.7	22.6	674	1,344	2,018	154	403	556	187.6	1,264		175.1	200.3	377.2
1985–6[1]	265.3	23.0	550	1,462	2,012	170	410	580	159.4	877		148.8	82.7	
1986–7[3]	242.9	21.8	525	1,432	1,957									

[1] Preliminary. [2] As of applicable date when support level was computed. [3] Estimate. *Source: Agricultural Marketing Service, U.S.D.A.* T.698

Exports[1] of Tobacco from the United States In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1977	76.8	53.0	54.7	31.3	38.0	41.5	49.7	47.5	66.3	17.9	49.5	102.4	628.6
1978	52.5	55.6	73.2	40.9	32.3	29.2	42.7	52.3	41.3	85.8	95.8	86.3	687.8
1979	35.6	50.1	57.1	51.8	42.2	25.3	38.0	29.5	30.1	41.6	78.9	81.5	561.8
1980	28.0	52.5	80.1	54.6	53.2	43.0	40.9	28.3	32.3	47.6	64.4	66.6	591.5
1981	44.8	32.8	53.7	49.4	44.6	40.1	31.3	27.4	45.5	63.2	86.8	55.6	575.3
1982	31.7	39.4	62.1	41.8	54.0	37.2	23.9	30.2	24.8	74.5	92.2	50.5	562.3
1983	24.2	38.3	46.0	44.0	33.6	32.7	28.6	36.0	26.4	51.7	87.9	60.3	509.8
1984	42.0	40.2	43.3	32.4	26.5	28.9	14.8	18.4	39.1	68.0	97.9	77.1	528.5
1985[2]	34.6	48.5	48.1	54.1	15.8	14.2	20.4	39.2	41.1	48.1	85.4	89.3	538.6
1986[2]	21.6	31.9											

[1] Represents unmanufactured tobacco, including stems, trimmings and scrap. [2] Preliminary. *Source: Department of Commerce* T.699

Tung Oil

Tung oil is an industrial oil produced from tung nuts, a tree crop, and is used as a lubricant and also as a drying oil.

The People's Republic of China is the world's largest producer of tung nuts, accounting for about three-quarters of world production, which runs about 95,000 to 105,000 tonnes annually. Argentina and Paraguay also produce and export tung oil.

China is the major exporter of tung oil. Its exports amounted to an estimated 11,400 tonnes in 1984. Exports, according to *Oil World*, in the first half of 1985 totaled only 5,300 tonnes, off 23 percent from exports in the same period of 1984. Tung oil prices, basis Rotterdam, were sharply lower in 1985 than in the previous year, which was a period of relatively high prices.

U.S. consumption of tung oil in inedible products totaled about 12.7 million pounds in the October 1984/September 1985 period, according to the U.S. Census Bureau, 37 percent below the 20.1 million pounds used in the same period of the previous season. October 1, 1985 U.S. stocks of tung oil were estimated at 1.5 million pounds, up 21 percent from the 1.3 million pounds on hand a year earlier.

Supply and Distribution of Tung Oil in the United States In Thousands of Pounds

Year	Stocks Jan. 1	Production	Imports	Exports[2]	Total Supply	Appar. Disappearance	Factory Consumption (Crop Yr. Beg. Oct.) Total	Paint & Varnish	Resins & Plastics	Other Inedible Pods	Oil Acquired By CCC
1974	25,738	—	21,036	700	46,075	34,858	34,000				—
1975	11,217	—	30,064	1,700	39,580	33,228	43,000	26,000			—
1976[1]	6,352	—	34,509	1,600	39,261	36,961	25,000				—
1977[1]	2,300	—	18,821	1,200	19,900	16,900	20,100				
1978[3]	3,000		17,912				13,500	7,200	3,700	2,600	
1979[3]	1,200		20,038				15,700	10,400	3,000	2,300	
1980[3]	3,500		16,239				16,600	8,300	3,700	4,600	
1981[3]	2,800		15,033				14,600	5,800	3,200	5,600	
1982[3]	2,200		14,398				12,700	5,300	2,800	4,000	
1983[3]	2,217		13,635				19,700	5,600	3,400	10,800	
1984[3]	3,137		13,929				12,400	5,100	4,500	2,900	
1985[3]	2,546										
1986[3]	3,514										

[1] Preliminary. [2] Also including re-exports. [3] Estimate. *Source: Economic Research Service, U.S.D.A.* T.703

U.S. Stocks of Tung Oil at Factories & Warehouses In Thousands of Pounds

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept	Oct. 1	Nov. 1	Dec. 1
1983	2,217	3,124	1,612	1,697	1,768	2,706	2,901	2,742	[illegible]	1,103	1,948	1,845
1984	3,137	2,867	3,042	2,634	2,609	2,102	1,815	1,802	1,476	1,192	2,113	2,029
1985[1]	2,546	2,589	2,353	1,642	1,707	1,599	1,564	2,163	2,272	1,526	1,798	2,617
1986[1]	3,514	3,347	2,651	3,110								

[1] Preliminary. *Source: Bureau & the Census.* T.703A

Average Price of Tung Oil[1] (Imported-Drums) F.O.B. New York In Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1973	15.5	15.5	15.5	15.5	17.1	20.0	N.A.	N.A.	31.0	31.2	33.8	35.0	23.0
1974	35.0	36.0	39.0	39.0	38.3	35.5	35.5	35.5	35.0	35.2	38.9	41.0	37.0
1975	41.0	41.0	41.0	41.0	41.0	41.0	41.0	35.4	32.2	33.0	33.0	33.0	37.8
1976	33.0	33.2	34.0	34.0	33.8	37.0	54.0	65.0	65.0	65.0	65.0	65.0	48.7
1977	65.5	72.7	97.0	142.4	147.0	147.0	128.2	100.0	100.0	100.0	100.0	100.0	108.3
1978	100.0	100.0	100.0	100.0	100.0	100.0	100.0	87.5	87.5	87.5	68.5	66.4	91.4
1979	68.9	68.9	67.9	69.0	69.0	69.0	69.0	69.0	62.5	55.0	51.0	51.0	64.2
1980	51.0	55.1	55.8	53.0	51.1	48.3	45.2	43.7	46.6	56.5	65.5	67.2	53.3
1981	69.6	68.0	64.0	60.3	62.9	64.5	64.0	64.0	62.1	60.3	58.5	58.5	63.1
1982	61.4	69.5	68.2	66.5	68.3	69.4	66.9	63.5	60.6	60.5	60.5	60.5	64.6
1983	60.5	57.0	57.0	61.9	86.4	102.5	102.5	107.3	133.4	136.0	138.0	138.0	98.4
1984	138.0	138.0	138.0	138.0	138.0	134.0	134.0	117.0	106.9	89.0	81.0	81.0	119.3
1985	81.0	81.0	81.0	81.0	81.0	N.A.	52.0	53.0	55.0	55.0	55.0	52.5	66.1

[1] Carlots, imported, f.o.b. New York. *Source: Economic Research Service, U.S.D.A.* T.704

Tungsten

Estimated world output of tungsten in concentrates increased marginally in 1985 from the year before, with China, the USSR, and Canada the leading producers. Global consumption retreated about 6 percent as tungsten demand in cemented carbides and mill products fell. The primary world use of tungsten is as a carbide in cutting and wear-resisting materials.

U.S. mine production, estimated by domestic mine shipments, fell about 6 percent in 1985. Three mines located in California and Colorado provided about 90 percent of tungsten concentrate production. Several U.S. mines were temporarily closed during 1985 because prices were relatively low. Mine capacity utilization was 22 percent, somewhat below the 1984 level. In 1985, U.S. imports of tungsten concentrate for consumption—supplied primarily by China and Canada—were down 18 percent from the year before, while concentrate exports were estimated as 29 percent lower.

Apparent domestic consumption of concentrate, scrap, and metal fell about 16 percent in 1985, after a considerable increase in 1984. In the U.S., tungsten was used mainly in machines and equipment for the metalworking, mining, and construction industries.

World Concentrate Production of Tungsten In Metric Tons of Contained Tungsten[3]

Year	Japan	Argentina	Australia	Bolivia	Brazil	Burma	China	Rep. of Korea	Canada	Portugal	Spain	Thailand	USSR	United States	World Total
1981	631	11	3,517	2,779	1,576	825	13,500	2,739	1,993	1,395	437	1,209	8,850	3,605	49,088
1982	604	17	2,618	2,534	1,574	844	12,500	2,420	2,842	1,358	545	855	9,000	1,521	45,686
1983[1]	475	41	2,015	2,449	1,056	930	12,500	2,480	328	1,183	517	562	9,100	980	39,430
1984[2]	477	40	1,843	2,100	998	1,096	13,500	2,703	3,690	1,493	500	741	9,100	1,203	44,939
1985[2]			2,000	1,700	1,200	1,100	13,500	2,600	3,000	1,400		600	9,100	1,100	45,100

[1] Preliminary. [2] Estimate. [3] Conversion Factors: WO_3 to W, multiply by 0.7931; 60% WO_3 to W, multiply by 0.4758. *Source: Bureau of Mines* T.706

Salient Statistics of Tungsten in the U.S. In Metric Tons of Contained Tungsten

Year	Net Import Reliance as a % of Apparent Consumption	Production[1]	Shipments from Mines[1]	Total Consumption	Consumption of Tungsten Products by End Uses								Exports	Stocks at End of Year (Concentrate)	
					Steel										
					Tool	Stainless & Heat Assisting	Alloy Steel[3]	Superalloys	Cutting & Wear Resistant Materials	Pdt's Made from Metal Powder	Miscellaneous	Chemicals & Ceramic		Consumers & Dealers	Producers[1]
1980	53	2,754	2,738	9,268									920	601	48
1981	50	3,605	3,545	9,839									79	671	108
1982	42	1,521	1,575	4,506									305	1,765	54
1983	52	980	1,016	5.181	196	46	12	215	4,097	1,553	220	71	1	1,085	47
1984[2]	70	1,203	1,173	8,577	516	81	38	5	6,386	2,036	983	139	129	959	46
1985[4]	68		1,100	6,838									100	—1,500—	

[1] Primary concentrates. [2] Preliminary. [3] Other than tool. [4] Estimate. *Source: Bureau of Mines* T.707

U.S. Imports[1] of Tungsten Ores & Concentrates & Ferrotungsten In Metric Tons[4] (Tungsten Content)

Year	Tungsten Ores and Concentrates Imported (For Consumption)												Ferrotungsten Imported			
	Australia	Bolivia	Brazil	Canada	South Korea	Mexico	Portugal	Spain	Thailand	Peru	Total 1,000 Pounds	Value Mil. $	Austria	Portugal	West Germany	Total 1,000 Lbs.
1980	235	2,794	63	2,914	19	515	576	94	1,046	526	11,372	87.1	68	10	17	446
1981	304	2,511	444	2,005	156	616	1,028	49	706	652	11,752	91.2	92	17	26	325
1982[4]	16	643	247	1,259	9	246	239	—	134	114	3,528	46.7	11	43	3	69
1983	28	662	78	649	117	215	339	—	142	199	2,861	25.7	25	19	—	48
1984[2]	133	1,302	149	1,464	16	196	606	22	774	605	5,807	51.7	93	65	38	285
1985[3]											4,746					

[1] Imports for consumption. [2] Preliminary. [3] Estimate. [4] Data prior to 1982 are in thousands of pounds. *Source: Bureau of Mines* T.708

Tungsten Prices In U.S. Dollars

Year	Markets		Reported Value, F.O.B. U.S. Mine[2]			Year	Markets		Reported Value, F.O.B. U.S. Mine[2]		
	U.S.[1]	European	Total (Mil. $)	Avg. per Unit of WO_3	Avg. per Kilogram of Tungsten		U.S.[1]	European[1]	Total (Mil. $)	Avg. per Unit of WO_3	Avg. per Kilogram of Tungsten
1980	131.07	129.87	50.6	146.49	18.47	1983	85.00	81.00	10.5	82.17	10.36
1981	130.25	129.16	62.2	139.21	17.55	1984[3]	85.00	87.00	13.4	90.63	11.43
1982	106.00	107.00	22.1	111.06	14.00	1985[3]	68.00	71.00			

[1] Conc., Stu WO_3, Average (a short ton unit [stu] of tungsten trioxide [WO_3] contains 15,862 pounds of tungsten). [2] Values apply to finished concentrate & are in some instances f.o.b. custom mill. [3] Preliminary. *Source: Bureau of Mines* T.709

Turkeys

For the full year 1985, federally inspected turkey slaughter increased nearly 7 percent, with turkey meat production (certified ready-to-cook) up 8.5 percent. The 1985 turkey crop totaled 185 million head, up 8 percent from 1984. North Carolina continued to hold its position as top producer, followed by Minnesota, California and Arkansas. Virginia became the 5th-largest producing state in 1985, capturing that spot from Missouri. The top 5 states accounted for about 60 percent of the total turkeys raised in both 1985 and 1984. Low cold storage holdings of frozen turkey at the beginning of 1985 and favorable returns to producers encouraged increased production.

Despite generally strong turkey prices, exports in 1985 increased by about 3 percent from 1984 levels. Egypt was the largest customer, followed by the Federal Republic of Germany. Turkey parts accounted for more than 70 percent of total turkey exports in 1985, and for all of the exports to the two aforementioned countries.

The weighted average wholesale price of turkeys averaged an exceptionally high 77.3¢ per pound in 1985, up from 75.6¢ in 1984. From a May 1985 low of 63¢ per pound, prices for 8-to-16-pound young hen turkeys in the Eastern Region moved up to 93¢ in November before slipping to 87¢ in December, and then dropping sharply to 60¢ in January 1986. Per capita turkey consumption of 12 pounds in 1985 was record large.

Turkey hatcheries placed 199 million poults in the U.S. during 1985, up 8 percent from 1984 and producers are sharply expanding output in 1986. The turkey eggs in incubators on March 1, 1986 totaled 26.3 million, 8 percent above the 24.3 million a year earlier. And, the 18.6 million poults placed during February 1986 in the U.S. were 15 percent above placements in the same month a year ago. Producers were expected to slow the rate of increase in the major hatching season. However, if they follow through with their December intentions, second-half 1986 production could be up 7 percent from output in the same period of 1985.

Cold storage holdings of frozen turkey were very low at the beginning of 1985, but increased somewhat during the year. January 1, 1986 stocks of 150 million pounds were 25 million above the year earlier level and increased further in the first quarter of 1986. Stocks were expected to show an additional seasonal increase in the second quarter of 1986, but most of the expected gain in production was forecast to be consumed rather than used to build abnormally large stocks.

Wholesale prices for hen turkeys in 1986 are expected to be below 1985 levels because of a sharp increase in turkey production and near-record supplies of total meat. Further-processed turkey items have boosted demand for turkey, and consumers are increasing their per capita consumption. Prices for 8-to-16-pound hen turkeys in the second quarter of 1986 were expected to average near 60¢ per pound because of large supplies and seasonally low demand, down from 65¢ in the same period of 1985. Prices in the second-half 1986 are expected to strengthen as retailers begin purchasing for their holiday needs. Nevertheless, second-half 1986 prices may average 64¢ to 66¢ per pound versus 84¢ in the corresponding period of 1985. Inventories are expected to increase to 220 million pounds December 31, 1986.

Salient Statistics of Turkeys in the U.S.

Year	Breeder Hens on Farms—Dec. 1 — Number (In Millions)	Breeder Hens on Farms—Dec. 1 — $ Value Per Head	Raised (In Millions)	(Liveweight) Produced Million Lbs.	(Liveweight) Farm Price ¢ Lb.	Gross Income Million $	Ready-to-Cook Basis — Production (Million Pounds)	Ready-to-Cook Basis — Commercial Storage Jan. 1 (Million Pounds)	Ready-to-Cook Basis — Exports & Shipments (Million Pounds)	Consumption — Military (Million Pounds)	Consumption — Civilian — Total (Million Pounds)	Consumption — Civilian — Per Capita Lb.	In Cents Per Lb. — Production Costs Live-Weight — Feed	In Cents Per Lb. — Production Costs Live-Weight — Total	Wholesale Ready-to-Cook — Total Costs	Wholesale Ready-to-Cook — 3-City Composite Price
1977	3.0	11.39	136.4	2,563	35.5	910	2,023	203	56	11	1,992	9.3	22.6	31.6	51.4	56.2
1978	3.4	12.53	138.9	2,655	43.6	1,157	2,098	168	57	15	2,019	9.2	22.1	31.7	51.7	68.8
1979	3.7	13.57	156.5	2,958	41.1	1,214	2,343	175	57	19	2,204	9.9	25.3	35.8	58.2	67.0
1980	3.7	14.11	164.9	3,077	41.3	1,272	2,425	240	81	16	2,370	10.5	26.1	37.1	61.0	66.0
1981	3.5	15.35	159.9	3,264	38.2	1,248	2,574	198	68	15	2,450	10.7	30.2	41.2	66.1	64.0
1982	3.4	14.60	164.5	3,175	39.5	1,255	2,522	238	56	12	2,489	10.8	24.5	36.3	60.1	63.6
1983	3.2	17.59	170.7	3,336	38.0	1,269	2,635	204	54	13	2,609	11.2	26.6	39.8	65.4	63.5
1984[1]	3.2	16.54	171.3	3,386	48.9	1,655	2,685	162	33	13	2,676	11.4	29.0	42.0	69.0	72.0
1985[2]			185.3	3,702	49.1	1,819	2,912	125	34	13	2,834	11.9				

[1] Preliminary. [2] Estimate. *Source: Economic Research Service, U.S.D.A.*

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Turkey Per Capita Consumption in the U.S. by Quarters In Pounds

Year	First	Second	Third	Fourth	Total	Year	First	Second	Third	Fourth	Total
1976	1.2	1.5	2.1	4.4	9.2	1981	1.6	1.9	2.5	4.6	10.7
1977	1.3	1.5	2.3	4.2	9.3	1982	1.8	2.1	2.6	4.3	10.7
1978	1.3	1.7	2.2	4.0	9.2	1983	2.1	2.2	2.5	4.4	11.2
1979	1.5	1.9	2.3	4.2	9.9	1984	2.0	2.2	2.7	4.5	11.4
1980	1.8	2.0	2.7	4.0	10.5	1985[1]	2.1	2.3	2.9	4.8	11.9

[1] Preliminary. *Source: Economic Research Service, U.S.D.A.*

T 711

TURKEYS

Wholesale Price of Turkeys[3] (Hens; 8–16 lbs.) N.Y. In Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Average Price Avg.	Yearly Average Price 4-Region Retail	Yearly Average Price Farm Price[2]
1973	45.1	48.6	56.0	57.7	60.6	67.8	69.4	81.1	86.0	84.2	80.2	71.2	67.3		34.8
1974	60.7	54.2	51.9	45.3	48.4	52.5	52.6	55.8	55.7	54.4	56.3	58.8	53.9		28.8
1975	59.0	56.7	55.9	52.0	52.6	56.5	59.5	61.8	64.3	66.8	69.9	70.0	60.3		34.8
1976	69.0	69.0	69.9	70.0	70.6	71.0	71.0	71.0	71.0	71.0	72.8	73.0	70.8		31.7
1977	72.5	70.2	68.8	68.8	69.0	70.1	72.1	73.2	73.6	74.6	75.5	78.2	72.2		35.5
1978	78.5	78.5	78.9	79.0	82.2	86.1	86.8	87.0	87.0	89.1	91.6	90.7	84.6		43.6
1979	91.0	90.8	90.0	89.5	90.9	91.0	91.0	91.5	91.4	93.1	94.5	92.9	91.5		41.9
1980[1]	62.3	57.8	56.8	54.1	53.3	55.5	63.3	67.2	74.5	77.0	75.0	67.0	63.6		40.0
1981	59.4	60.7	63.8	61.2	63.5	66.2	66.8	61.8	59.5	56.4	57.3	51.7	60.7	97.7	38.4
1982	53.6	55.8	56.0	55.8	58.8	61.8	64.1	64.1	68.0	69.6	67.2	54.2	60.8	92.6	39.5
1983	53.6	54.9	56.0	54.4	56.6	60.9	58.5	57.6	65.0	65.1	67.0	76.1	60.5	91.7	46.6
1984	72.2	64.7	66.1	67.0	66.8	67.0	68.6	72.4	76.2	82.6	91.5	97.3	74.4	98.7	48.0
1985	74.0	65.6	67.0	64.6	62.6	68.1	72.8	78.4	82.4	90.2	93.1	86.9	75.5	105.2	47.2
1986	60.2	61.7	63.9												

[1] Prior to 1980 prices are for frozen eviscerated tom turkeys (N.Y.C.); heaviest weights. [2] Live weight. [3] Ready-to-cook. *Source: Economic Research Service, U.S.D.A.* T.713

Certified Federally Inspected Turkey Slaughter in the U.S. In Millions of Lbs.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1974	97.3	59.8	58.9	80.1	113.2	159.7	213.1	237.2	220.2	261.1	215.2	119.9	1,836
1975	64.9	47.1	54.4	68.7	81.9	138.4	193.2	203.3	229.0	257.5	220.2	157.5	1,716
1976	76.3	61.7	68.6	79.9	106.5	182.2	213.9	243.8	252.8	256.6	261.5	146.4	1,950
1977	70.5	58.7	80.3	78.9	110.0	176.5	189.6	244.4	238.2	250.3	246.8	148.2	1,892
1978	81.8	59.7	86.3	80.8	129.3	189.5	199.9	248.8	230.9	271.2	248.9	156.3	1,983
1979	99.3	77.2	95.0	112.3	157.3	195.9	219.2	267.7	233.0	297.5	261.9	165.5	2,182
1980		378.6			528.3			711.6			713.9		2,232
1981		398.1			553.2			785.2			772.6		2,509
1982		410.4			527.9			761.5			759.1		2,459
1983		462.2			581.5			760.3			759.0		2,563
1984		432.3			589.3			777.2			775.3		2,574
1985		482.1			628.3			854.6			834.8		2,800
1986[1]		550.9											

[1] Preliminary. *Source: Economic Research Service, U.S.D.A.* T.714

Storage Stocks of Turkeys (Frozen) in the United States In Millions of Pounds

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1973	208.1	188.4	152.6	115.4	91.3	88.1	137.1	199.4	261.2	350.7	450.5	321.1
1974	281.0	274.0	250.5	235.9	225.0	227.4	265.8	335.8	431.8	528.7	554.6	372.0
1975	275.0	267.1	239.9	207.3	180.2	162.7	193.2	248.6	328.6	409.8	472.4	286.2
1976	195.2	186.8	160.7	140.7	114.5	120.8	177.3	261.8	370.3	459.7	512.3	298.8
1977	203.4	190.3	167.8	142.3	130.3	138.2	201.4	253.6	329.9	409.3	444.5	269.4
1978	167.9	168.2	136.6	113.0	101.1	103.9	152.8	213.6	301.2	373.3	425.4	236.2
1979	175.1	170.7	154.7	135.7	128.0	153.1	200.9	272.5	382.5	432.3	445.5	281.2
1980	240.0	246.8	225.0	208.9	206.6	233.8	286.6	325.8	384.0	398.8	420.2	257.6
1981	198.0	208.3	207.9	220.7	228.7	256.2	327.3	400.8	466.0	532.1	528.1	305.1
1982	238.4	236.9	236.4	232.8	—	—	281.7	—	—	435.8	—	—
1983	203.9	193.8	187.7	185.3	192.3	210.5	255.7	323.5	384.3	432.2	460.1	251.6
1984	161.8	161.5	145.8	149.4	142.2	180.9	226.3	278.2	331.0	390.6	415.4	195.7
1985	125.3	124.1	129.5	131.1	157.0	183.7	243.3	304.7	387.8	444.5	484.1	208.2
1986[1]	150.2	156.8	161.3	149.7								

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.712

Uranium

The steep decline in output and employment in the domestic uranium industry, a decline which began in 1979 with the accident at Three Mile Island, continued in 1985. Since 1979 no U.S. utility has ordered a nuclear power plant and more than 100 reactor orders have been cancelled. The work force in uranium exploration, production and milling plunged from 22,000 in 1979 to fewer than 3,500 in 1985. Output in 1985 has been estimated at about 6,500 short tons, compared with well over 20,000 tons six years earlier. By unanimous agreement among its leading figures, the industry in the U.S. in 1985 was operating at rock-bottom levels.

Underlining this point is the depressed state of that part of the industry which processes ore into yellowcake. Where in 1980 the U.S. produced nearly 44 million pounds, or about half the world's total supply, and sold the product at prices as high as $40 a pound, it produced only 10 million pounds in 1985—barely 20 percent of the world's supply—for sale at only $15 per pound.

The industry's current difficulties stem from two primary sources. One is the decline in demand during the last five years, a result not only of Three Mile Island, but also growing public disfavor with nuclear power plants constructed with vast cost overruns and alleged to be plagued with construction defects. The other main cause for the depression in the industry is its high average costs, compared with foreign suppliers, resulting in what some observers label a flood of imports. As to the latter, where in the middle 1970s the U.S. had a monopoly in the sale of enriched uranium outside the Soviet bloc of nations, now two European consortia—working with abundant, low-cost deposits in Canada, South Africa, Niger and Australia—supply two-thirds of the market.

Forecasts for 1986 and beyond are glum in tone. Industry observers see little or no prospect for a significant pickup in demand; some worry that falling oil prices will cause electrical utilities further to shift output from their nuclear units to their steam plants. The industry's main hope for strong revival rests upon federal intervention. One proposal before the Congress would have the federal government contribute one-third of an estimated $1 billion needed to clean up radioactive uranium-mill tailings, which are a severe environmental hazard. If adopted, the bill would provide jobs for a substantial number of unemployed uranium workers. A second and more potent stimulant is a proposal to require utilities to buy at least 75 percent of their uranium from domestic suppliers. One key figure in the industry argued in late 1985 that if imports were held at 25 percent of total domestic usage, output in the U.S. would rise slowly at first and by 1993 would reach 17,000 short tons, nearly treble the output in 1985.

Free-World Production of Uranium Oxide (U_3O_8) Concentrate In Thousands of Short Tons

Year	Argentina	Australia	Canada	Spain	Namibia	Gabon	France	Portugal	Niger	Brazil	Sweden	South Africa	United States	World Total
1979	.2	.9	8.9		5.0		3.1		4.7	0		6.2	18.7	49.6
1980	.2	2.0	9.3		5.3		3.4		5.3	0		8.0	21.8	57.2
1981	.2	3.7	10.0		5.2		3.3		5.7	.1		8.0	19.2	57.1
1982	.2	5.7	10.5		4.9		3.7		5.5	.4		7.6	13.4	53.7
1983[2]	.3	4.8	9.8		4.8		4.2		5.2	.4		7.5	10.6	49.3

[1] Less than 50 tons. [2] Preliminary. *Source: Bureau of Mines, Dept. of Energy*

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Apparent Domestic Utility Uranium Market Requirements (Million Pounds U_3O_8 Equivalent)

Year	Utility Purchases From Domestic Suppliers[a] (1)	Direct Imports by Utilities (2)	Unfilled Requirements (3)	Apparent Market Requirements (1+2+3)	Reported Utility Enrichment Feed Deliveries[b]
1984	22.0	4.7	2.6	29.3	34.0
1985	22.1	4.7	2.3	29.1	39.8
1986	22.0	4.9	3.2	30.1	40.4
1987	21.7	3.9	5.3	30.9	31.8
1988	20.0	4.3	7.6	31.9	38.2

[a] These purchases exclude certain optional purchase commitments that are calculated to be in excess of reported utility desires. In addition, these quantities include foreign-origin uranium purchased by suppliers that will be delivered to domestic utilities. [b] Includes natural uranium required to satisfy the terms of "de-enrichment swaps," because a de-enrichment swap is transactionally identical to a purchase of enrichment services. *Source: Energy Information Administration.*

Average U.S. Contract Prices & Market Price Settlements as of 1/1/1984 (Year-of-Delivery $)

Year	Reported Price Per Pound of U_3O_8	Percent of Delivery Quantities With Reported Prices	Adjusted Price Per Pound of U_3O_8[a]
1983	38.21[b]	97	37.81
1984	46.42[b]	100	46.42[c]
1985	49.21	100	49.21[c]
1986	49.08	100	49.08[c]
1987	50.68	100	50.68[c]

[a] Adjusted price per pound includes estimates for prices not reported by the respondents. [b] Includes settlements of market price contracts. [c] Estimates of missing prices not required. *Source: Energy Information Administration.*

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Vanadium

Production of vanadium worldwide in 1985 was estimated at 71 million pounds, roughly 3.5 percent greater than in 1984. Better than 42 percent of that output originated in the Republic of South Africa, another 31 percent in the USSR, and a further 17 percent in the People's Republic of China. The world's reserve base is thought to be 36.5 million pounds, although the world's resources of vanadium exceed 140 million pounds. Almost half (46.6 percent) of the reserve base is situated in South Africa, about 25 percent in the USSR, 21.5 percent in the U.S., and 10 percent in China.

In the U.S., output in 1985 was unreported to avoid disclosure of proprietary data about the 5 firms which are actively engaged in extractive operations. As a benchmark, however, 1984's total output of ore was only 3.2 million pounds, under 5 percent of the world's production. Output from the mills, on a recovered basis, amounted in 1984 to 5.2 million pounds in round numbers. And production of petroleum residues on a recovered basis was 5 million pounds in 1985, as against 3.3 million the year before. Imports of ore, slags, and residues, at 600,000 pounds combined, was down by more than 50 percent from 1984. Similarly, imports of vanadium pentoxide, anhydride fell 54 percent in 1985, and ferrovanadium dropped 23 percent for the year.

Reported consumption at 8.9 million pounds was down more than 6 percent from 1984. The decline was principally attributable to diminished domestic output of iron and steel, in which vanadium is used as an alloying agent. Employment in the industry's mines and mills slid to 450,000 from 660,000 in 1984, a decline of nearly one-third. But the average price per pound for vanadium pentoxide held steady at $3.50.

The shrinkage in the scale of the domestic industry was expected to continue into 1986. Apparent consumption was projected for the year at only 9 million pounds, two-thirds of what it was as recently as 1981. But demand for vanadium is expected to grow at an average annual rate of 2 percent through 1990, in response to rising demand for high-strength, low-alloy steels and other high-performance materials.

World Production of Vanadium from Ores and Concentrates In Short Tons (of Contained Vanadium)

Year	USSR	Chile	China	Finland	Australia	Norway	South West Africa[1]	South Africa	United States[1]	Other[4]	World Total
1978	10,000	760	2,200	3,092	—	510	485	12,400	4,272	1,697	35,416
1979	10,000	510	4,000	3,051	—	630	—	13,600	5,520	2,337	39,648
1980	10,500	300	5,000	3,135	—	540	—	16,428	4,806	2,230	42,939
1981	10,500	140	5,000	3,431	77	380	—	13,908	5,126	2,587	41,149
1982	10,500	—	5,000	3,470	26	120	—	12,911	4,098	2,267	38,392
1983[2]	10,500	—	5,000	3,516	—	—	—	9,737	2,171	1,671	32,595
1984[3]	10,500	—	5,000	3,377	—	—	—	13,798	1,617	2,433	34,292
1985[3]	11,000		6,000	2,750				15,000			35,500

[1] Recoverable vanadium. [2] Preliminary. [3] Estimate. [4] Production from petroleum residues, ashes, & spent catalysts. Mainly in Japan & the United States. Source: *Bureau of Mines*

T 722

Salient Statistics of Vanadium in the United States In Short Tons of Contained Vanadium

Year	Vanadium in Ores & Concentrates		Prod. of Vanad. Pentoxide (V_2O_5)	Consumer Stocks Dec. 31	Vanadium Consumed by Uses[2]								$ Per Lb. Van. Pentoxide[3]	General Imports[5]	Exports	
	Mine Production	Recoverable Vanadium			Tool Steel	Cast Irons	High Strength Low All.	Nonferrous Alloys	Chemicals	Carbon	Full Alloy	Total			Ore & Concentrates[4]	Ferro-Vanadium (Gross Weight)
1978	4,446	1,309														
1979	5,841	880														
1980	5,832	4,806	9,829	879	653	54	1,986	728	59	1,114	1,420	6,139	3.54	1,786	960	803
1981	5,852	5,126	11,367	683	584	42	2,123	852	56	1,278	1,832	6,663	3.52	2,435	463	435
1982	4,093	4,098	8,689	326	273	20	1,148	461	29	698	811	3,496	3.50	1,112	2,000	326
1983	N.A.	2,171	4,344	374	426	10	966	505	19	577	716	3,277	3.50	58	2,802	775
1984[1]	N.A.	1,617	4,678	449	610	18	1,636	905	22	683	816	4,761	3.50	633	4,029	469
1985[6]												4,450	3.50	300	1,000	365

[1] Preliminary. [2] Represent about 90% of the total consumption. [3] Dealer export. [4] Also includes fused vanadium oxide. [5] Ores, slags, residues. [6] Estimate. *Source: Bureau of Mines*

T 723

Wheat

World wheat production was expected to decline about 2 percent in 1985/86 to 503.9 million tonnes (according to USDA in April 1986), as lower EC and U.S. output more than offset larger crops in the USSR and Canada. Wet, cool August weather in several EC countries lowered yields, while U.S. planted area was reduced due to wet fields during seeding time. Soviet output rebounded from the previous year's drought reduced level, and yields were a near record. In Canada, expanded area and higher yields allowed an improvement in offtake.

Global utilization of wheat in 1985/86 was forecast by USDA to retreat about 2 percent. World wheat exports were expected to decline about 16 percent as Soviet, Chinese, and Brazilian import requirements were lower. In addition to the improved USSR crop, China—after three record harvests—was able to draw down stocks. A major factor dampening global exports was that importers in 1985/86 awaited reductions in world wheat prices, resulting from a new, market-oriented U.S. farm bill and expected competitor price cutting. Global carryover stocks were slated to expand 11 percent to 128.9 million tonnes, reaching a record. The U.S. was expected to hold about 40 percent of world stocks at the end of 1985/86.

U.S. 1985/86 wheat output of 2.425 billion bushels was about 7 percent lower than the previous year's crop as both area planted and average yield were lower. Area planted to all wheat was 75.58 million acres, of which 86 percent was harvested; average yield was 37.5 bushels per acre, the third highest ever. The winter wheat harvest of 1.827 million bushels was 11 percent below the year before and the lowest since 1979/80. However, output of durum and other spring wheat of 597.6 million bushels was 12 percent above the year before. The average durum yield of 36.4 bushels per acre and average other spring wheat yield of 35.4 bushels per acre were both records.

Total U.S. consumption of wheat (for food, feed, seed, etc.) was expected to be 7 percent below the year before, as feed use of wheat declined.

U.S. 1985/86 exports, pegged at 950 million bushels, continued on a downtrend. Shipments to foreign customers were about 33 percent below the previous year and only about half of the 1981/82 peak. This occurred despite the introduction of USDA's Export Bonus Program which authorizes grain sales at subsidized prices to targeted countries (chosen because they are areas of U.S.–EC market competition). U.S. wheat sales to the USSR declined precipitously, because of that country's increased grain output and also due to its exclusion from the Export Bonus Program. Shipments to China and Brazil were also sharply lower. Exports of wheat products (flour, bulgur, semolina, and rolled and cracked wheat) were expected to be slightly lower in 1985/86 than the year before. Egypt continued to be the largest customer, purchasing flour under U.S. government credit financing.

Prospects for sluggish U.S. wheat exports in 1985/86 encouraged producers to place considerable quantities of wheat in the government loan program. U.S. carryover stocks in 1985/86 were forecast to reach 1.89 billion bushels, up 33 percent from the year before and the largest ever. About 60 percent of the stocks were expected to be held in government loan and storage programs, while the remainder were expected to be "free" supplies.

The government loan rate for 1985-crop wheat was $3.30 per bushel, and both cash and futures prices fell below this usually effective floor during the marketing season. Cash prices of No. 2 ordinary hard wheat in Kansas City ranged from $3.00–$3.55 per bushel from the start of the marketing season in June 1985 to late April 1986. Prices of nearby Chicago wheat futures were $2.70–$3.70 per bushel during this period. In both markets, prices slipped considerably during July through October 1985.

Government Support Program

The 1986-crop wheat loan rate was reduced 27 percent from the year before to $2.40, to make U.S. wheat prices more competitive internationally. The target price was left at $4.38, the same as in 1985. An acreage reduction of 25 percent is mandated for producers participating in the 1986 wheat program.

Futures Markets

In the U.S., wheat futures are traded on the Chicago Board of Trade, the Kansas City Board of Trade, the Minneapolis Grain Exchange, and the Mid-America Commodity Exchange in Chicago.

World Production of Wheat In Thousands of Metric Tons

Crop Year	Argentina	Australia	Canada	China	France	W. Germany	India	Italy	Pakistan	Spain	Turkey	Un. Kingdom	USSR	United States	World Total[1]
1978–9	8,100	18,100	21,100	53,800	21,056	8,118	31,700	9,191	8,400	4,795	13,300	6,615	120,800	48,300	446,800
1979–0	8,100	16,200	17,200	62,700	19,544	8,061	35,500	8,980	9,900	4,082	13,000	7,169	90,200	58,080	424,500
1980–1	7,780	10,856	19,158	55,210	23,683	8,156	31,830	9,150	10,857	6,039	13,000	8,472	98,200	64,800	442,900
1981–2	8,300	16,400	24,803	59,640	22,882	8,314	36,313	8,828	11,473	3,408	13,200	8,710	80,000	75,800	448,400
1982–3	15,500	8,900	26,700	68,400	25,368	8.632	37,500	8,903	11,300	4,410	13,800	10,315	86,000	75,300	479,100
1983–4	12,800	22,000	26,500	81,400	24,828	8,998	42,800	8,514	12,400	4,330	13,300	10,880	79,000	65,900	490,900
1984–5[2]	13,200	18,300	21,200	87,800	33,125	10,223	45,500	9,478	10,900	6,044	13,300	14,900	73,000	70,600	514,600
1985–6[1]	8,500	16,500	23,900	86,000			44,200						83,000	66,000	503,200

[1] Estimated. [2] Preliminary. *Source: Foreign Agricultural Service, U.S.D.A.* T.724

WHEAT

World Wheat Supply & Demand In Millions of Metric Tons/Hectares

	Area Harvested	Yield	Production	World Trade	Utilization Total	Ending Stks	Stocks as % of Util
1981/82	238.7	1.88	448.4	101.3	441.5	85.0	19.4
1982/83	237.5	2.02	479.1	98.6	467.9	96.3	20.9
1983/84	229.1	2.16	490.4	101.9	486.3	101.0	21.0
1984/85[1]	231.2	2.23	514.6	106.4	499.6	116.0	23.4
1985/86[2]	229.2	2.20	503.2	89.0	490.4	128.9	26.2

[1] Preliminary. [2] Estimate. *Source: Foreign Agricultural Service, U.S.D.A.* T.724a

Salient Statistics of Wheat in the United States

Crop Year	Planting Intentions —1,000 Acres—	Acreage Harvested Winter (1,000 Acres)	Acreage Harvested Spring (1,000 Acres)	Acreage Harvested All (1,000 Acres)	Avg —All Yield Per Acre In Bushels	Farm Disposition Used for Seed (Million Bushels)	Farm Disposition Fed to Livestock (Million Bushels)	Farm Disposition Sold (Million Bushels)	Value of Production Ths. $	Foreign Trade[5] Domestic Exports[2] (Million Bushels)	Foreign Trade[5] Imports[3] (Million Bushels)	Per Capita[1] Consumption Flour (In Pounds)	Per Capita[1] Consumption Cereal (In Pounds)
1981-2	88,251	58,476	22,166	80,642	34.5	—Not Available—			10,172,242	1,771	2.8	116	3.1
1982-3	86,232	57,633	20,304	77,937	35.5				9,813,015	1,509	7.6	119	3.1
1983-4	76,419	47,584	13,806	61,390	39.4				8,532,790	1,429	4.0	116	3.1
1984-5	79,213	51,513	15,415	66,928	38.8				8,735,303	1,424	8.0	118	3.1
1985-6[4]	75,575	47,953	16,781	64,734	37.5					900	14.0	123	
1986-7[4]	71,101												

[1] Civilian only. [2] Includes flour milled from imported wheat. [3] Total wheat, flour & other products. [4] Preliminary. [5] Year beginning June. *Source: Economic Research Service, U.S.D.A.* T.728

Supply and Distribution of Wheat in the United States In Millions of Bushels

Crop Yr. Beginning June	Supply: Stocks, June 1 On Farms	Supply: Stocks, June 1 Mills, Elevators[3]	Supply: Total Stocks	Supply: Production	Supply: Imports[4]	Supply: Total Supply	Domestic Disappearance: Food	Domestic Disappearance: Seed	Domestic Disappearance: Industry	Domestic Disappearance: Feed Residual[5]	Domestic Disappearance: Feed (On Farms Where Grown)	Total Domestic Disap.	Exports[4]	Total Disappearance
1981-2	414.4	574.7	989.1	2,785.4	2.8	3,777	602.4	110.0	—	—134.8—		847.2	1,770.7	2,618
1982-3	576.2	583.2	1,159.4	2,765.0	7.6	3,932	616.4	97.0	—	—194.9—		908.3	1,508.6	2,417
1983-4	668.9	846.1	1,515.1	2,419.8	4.0	3,939	642.6	100.0	—	—369.1—		1,111.7	1,428.6	2,540
1984-5[1]	591.7	806.7	1,398.6	2,595.5	9.4	4,004	650.1	93.0	—	—411.0—		1,154.1	1,424.2	2,578
1985-6[2]	582.1	843.2	1,425.2	2,424.8	12.0	3,862	660.0	90.0	—	—325.0—		1,075.0	950.0	2,025

[1] Preliminary. [2] Estimated. [3] Also warehouses and all off-farm storage not otherwise designated, including flour mills. [4] Imports & exports are for wheat, including flour & other products in terms of wheat. [5] Approximate feed use. *Source: Economic Research Service, U.S.D.A.* T.737

Stocks, Production, and Exports of Wheat, by Classes In Millions of Bushels

Year Beginning June	Hard Spring June 1 Stocks	Hard Spring Production	Hard Spring Exports[2]	Durum[3] June 1 Stocks	Durum[3] Production	Durum[3] Exports[2]	Hard Winter June 1 Stocks	Hard Winter Production	Hard Winter Exports[2]	Soft Red Winter June 1 Stocks	Soft Red Winter Production	Soft Red Winter Exports[2]	White June 1 Stocks	White Production	White Exports[2]
1981-2	257	464	205	60	183	82	541	1,112	754	38	678	460	93	348	270
1982-3	346	492	239	106	146	59	538	1,243	679	60	590	325	109	294	207
1983-4	408	323	221	136	73	62	754	1,198	704	74	504	222	143	322	220
1984-5[1]	314	408	183	99	103	61	745	1,251	717	74	531	253	167	301	210
1985-6[4]	371	460	160	100	113	45	717	1,230	445	64	368	160	173	254	140

[1] Preliminary. [2] Includes flour made from U.S. wheat & shipments to territories. [3] Includes "Red Durum." [4] Estimate. *Source: Economic Research Service, U.S.D.A.* T.727

Seeded Acreage, Yield and Production of All Wheat in the United States

Year	Seeded Acreage—1,000,000 Acres Winter	Seeded Acreage Not Durum	Seeded Acreage Durum	Seeded Acreage All	Yield Per Harvested Acre—In Bushels Winter	Yield Not Durum	Yield Durum	Yield All	Production—1,000,000 Bushels Winter	Production Not Durum	Production Durum	Production All
1981	65.5	16.9	5.8	88.3	35.9	30.6	32.4	34.5	2,097.1	505.3	183.0	2,785.4
1982	65.5	16.4	4.3	86.2	36.0	33.8	34.9	35.5	2,073.6	545.5	145.9	2,765.0
1983	62.1	11.7	2.6	76.4	41.8	31.7	29.3	39.4	1,988.3	358.5	73.0	2,419.8
1984	63.4	12.5	3.3	79.2	40.0	35.3	32.1	38.8	2,060.3	431.1	103.4	2,594.8
1985[2]	57.8	14.6	3.2	75.6	38.1	35.4	36.4	37.5	1,827.2	485.1	112.5	2,424.8
1986[1]	54.0				37.4				1,603.1			

[1] Preliminary. [2] Estimate. *Source: Crop Reporting Board, U.S.D.A.* T.726

Production of Winter Wheat in the United States In Millions of Bushels

Year	Colorado	Idaho	Illinois	Indiana	Kansas	Michigan	Missouri	Montana	Nebraska	Ohio	Oklahoma	Oregon	Pa.	Texas	Wash.	Total Winter
1977	56.1	32.4	67.5	55.8	344.9	33.0	68.6	81.2	103.3	72.4	175.5	45.2	8.9	117.5	95.2	1,540.4
1978	57.3	41.8	33.4	28.9	300.0	16.4	28.6	83.7	81.6	42.1	145.8	47.3	7.1	54.0	117.0	1,222.4
1979	67.6	35.7	53.8	44.4	410.4	31.6	70.4	57.4	86.7	63.4	216.6	48.0	7.3	138.0	94.6	1,601.2
1980	107.2	51.9	75.4	53.9	420.0	35.2	89.0	54.8	108.3	67.1	195.0	72.0	9.3	130.0	143.0	1,895.4
1981	83.9	55.7	92.5	62.1	305.0	41.5	115.5	89.3	104.4	72.6	172.8	73.2	9.7	183.4	161.3	2,103.5
1982	81.5	53.0	67.5	43.3	458.5	23.0	74.8	80.6	101.5	51.6	227.7	59.4	8.2	144.0	125.4	2,073.6
1983	117.0	55.6	64.4	49.5	448.2	35.8	70.3	79.1	98.9	58.8	150.5	62.0	7.6	161.0	162.5	1,988.3
1984	110.4	56.7	70.4	48.3	431.2	45.6	84.1	67.0	81.0	48.4	190.8	66.2	8.4	150.0	148.8	2,060.3
1985[1]	134.6	46.1	36.8	37.1	433.2	45.0	49.9	22.4	89.7	58.9	165.0	51.8	10.1	187.2	115.2	1,827.2

[1] Preliminary, December estimate. *Source: Crop Reporting Board, U.S.D.A.* T.734

United States Official Winter Wheat Crop Production Reports In Thousands of Bushels

Crop Year	Previous December	May 1	June 1	July 1	August 1	Sept. 1	Current December	Final
1977–8	1,438,015	1,477,455	1,526,000	1,539,029	1,526,029	1,528,844	1,526,713	1,540,419
1978–9	1,321,068	1,284,375	1,308,000	1,801,705	1,248,405	1,243,685	1,248,272	1,222,446
1979–0	1,441,306	1,390,848	1,427,000	1,560,768	1,602,901	1,595,591	1,608,897	1,601,234
1980–1	1,567,817	1,711,010	1,757,170	1,848,000	1,870,000	1,878,000	1,891,251	1,895,383
1981–2	1,977,079	2,078,137	2,013,607	2,092,692	2,064,845	2,059,205	2,098,719	2,103,538
1982–3	2,128,133	2,063,336	2,131,214	2,124,854	2,095,554	2,106,149	2,108,246	2,073,560
1983–4	Discontinued	1,893,241	1,882,916	1,937,388	1,963,243	1,976,843	1,993,888	1,988,304
1984–5	"	1,979,366	1,972,776	2,021,918	2,045,088	2,036,028	2,060,646	2,060,266
1985–6	"	1,974,228	1,892,438	1,854,254	1,842,884	1,839,284	1,827,195	
1986–7	"	1,603,127						

Source: Crop Reporting Board, U.S.D.A. T.736

Production of All Spring Wheat in the United States In Millions of Bushels

	Durum Wheat							Other Spring Wheat									
Year	Arizona	California	Minnesota	Montana	North Dakota	South Dakota	Total Durum	Colorado	Idaho	Minnesota	Montana	North Dakota	Oregon	South Dakota	Utah	Washington	Total
1977	6.1		2.8	4.8	60.5	3.3	80.0	1.1	18.4	125.6	44.9	167.0	2.4	51.7	.6	6.1	425.1
1978	6.4		3.8	8.7	102.1	3.8	133.3	2.0	33.6	87.8	53.7	180.1	4.6	44.0	1.4	11.2	419.8
1979	5.3		2.8	6.8	84.5	3.6	106.7	2.6	38.4	85.8	52.3	165.1	9.3	46.0	1.6	23.4	426.2
1980	12.4	7.8	3.4	7.6	73.2	4.1	108.4	3.1	44.2	96.9	57.4	105.5	5.4	37.4	1.4	17.2	370.5
1981	18.3	14.7	5.4	11.0	130.8	5.8	185.9	4.0	34.1	134.0	72.5	197.4	4.2	52.8	1.4	7.0	509.3
1982	7.0	11.6	3.0	9.9	110.8	3.5	145.9	3.5	41.8	120.8	89.9	209.3	4.1	58.8	1.6	13.4	545.5
1983	5.0	6.3	1.2	4.1	54.3	2.1	73.0	5.1	36.1	75.1	53.7	135.0	3.6	36.4	1.4	10.1	358.5
1984	7.2	9.4	1.6	3.6	78.6	3.1	103.4	4.6	24.7	103.7	34.1	183.6	2.8	61.7	1.6	11.6	431.1
1985[1]	3.9	7.4	1.7	1.4	95.5	2.6	112.5	4.8	25.9	130.4	26.4	212.0	4.2	64.5	1.7	13.1	485.1

[1] Preliminary, December estimate. *Source: Crop Reporting Board, U.S.D.A.* T.735

Wheat Under Price Support Through the End of the Month (Cumulative Total from Current Season's Crop) In Millions of Bushels

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1977–8	186.9	327.2	406.7	438.7	462.8	478.7	509.2	523.6	556.4	572.6	579.5	582.1	582.1
1978–9	53.0	105.7	154.6	183.1	202.5	213.4	237.5	242.8	251.0	254.0	254.3	255.0	255.0
1979–0	6.5	30.1	55.6	82.8	103.3	115.5	138.2	145.4	161.0	176.4	179.4	180.5	180.5
1980–1	35.7	56.6	99.2	126.5	142.2	183.3	228.6	261.0	297.4	328.0	328.0	329.4	329.4
1981–2	84.6	164.4	254.8	296.1	314.1	344.7	392.3	411.7	427.4	443.3	444.5	445.8	
1982–3	106.7	206.5	335.2	414.0	467.2	501.1	579.1	606.1	629.4	638.6	640.9	643.4	
1983–4	196.3	335.2	357.5	462.8	494.7	520.4	571.5	595.4	619.2	627.5	629.1	630.3	
1984–5	48.8	104.9	195.5	213.4	225.6	237.7	263.5	270.2	275.7	279.7	280.1	280.8	
1985–6	269.5	414.2	567.7	679.0	714.3	740.7	787.0	803.8	813.5				

Source: Economic Research Service, U.S.D.A. T.729

WHEAT

United States Grindings of Wheat by Mills In Millions of Bushels (of 60 Pounds Each)

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1977–8	46.1	54.8	52.2	52.4	53.2	52.1	48.4	48.9	54.8	50.5	53.6	51.5	606.9
1978–9	49.7	56.1	50.5	55.3	52.9	48.9	51.0	48.3	52.6	50.3	55.2	50.3	621.1
1979–0	52.1	59.0	52.4	58.9	55.7	50.6	55.0	50.4	49.1	47.2	49.8	47.8	628.0
1980–1	51.8	53.0	54.8	58.4	54.6	56.9	53.9	51.1	55.3	53.4	52.2	52.6	648.0
1981–2	51.2	53.3	54.6	55.6	51.0	50.2	54.8	53.9	57.8	51.4	50.0	51.2	635.0
1982–3	53.4	57.0	55.4	57.5	54.9	55.9	55.7	53.6	60.1	54.8	59.1	57.7	675.1
1983–4	56.2	66.1	62.9	59.4	57.2	56.0	55.7	57.5	58.4	54.0	60.1	54.6	698.1
1984–5[1]	51.8	59.2	55.2	58.7	56.3	53.1	56.9	57.3	58.9	55.0	58.1	53.6	673.8
1985–6[1]	54.2	60.7	59.6	64.9	63.2	55.9	60.6						

[1] Preliminary. *Source: Bureau of the Census* T.744

U.S. Wheat Foreign Trade and Domestic Disappearance In Millions of Bushels

Year Begin. June	Imports (Grain Only) June-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-May	Total	Exports (Grain Only) June-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-May	Total	Domestic Disappearance June-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-May	Total
1977–8	.8	.4	.4	.3	1.9	382	225	279	238	1,124	373	183	189	114	859
1978–9	.6	.5	.5	.3	1.9	493	309	225	168	1,194	327	195	177	138	837
1979–0	.7	.5	.5	.4	2.1	511	388	283	194	1,375	277	167	209	130	783
1980–1	.8	.6	.6	.5	2.5	375	379	399	360	1,514	194	243	171	174	783
1981–2	.7	.8	.8	.6	2.8	424	486	415	446	1,771	295	233	147	173	847
1982–3	1.2	3.0	2.6	.8	7.6	411	337	394	367	1,509	285	252	180	191	908
1983–4	1.1	.9	1.0	1.0	4.0	347	360	369	353	1,429	356	339	216	201	1,112
1984–5[1]	4.6	1.8	1.2	1.8	9.4	399	486	335	204	1,424	439	337	204	174	
1985–6[1]	3.5	5.1	2.7			249	253	224			401	305			

[1] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.730

Wheat Government Loan Program Data in the United States Loan Rates (Cents Per Bushel)

Crop Year Beginning June	Total Support Rate	National Avg.[1]	Target Rate	Corn Belt (Soft Red Winter)	Central & So. Plains (Hard Winter)	No. Plains (Spr. & Dur.)	Pacific North-West (White)	Placed Under Loan	Put in Reserve (June 1)	Repaid Loans (June 1)	Delivered to CCC	Ending Carry-over	CCC Uncommitted	Total Stocks Ending May 31 — Outstanding — CCC Loans	Farmer-Owned Reserve	Privately Owned
								Millions of Bushels								
1977–8	247	225	290	226	219	226	231	590.8	195.0	393.6	2.2	1,178		—	17.3	1,129.5
1978–9	340	235	340	234	228	236	241	255.1	23.9	231.2	—	924.1		—	14.6	873.0
1979–0	340	250	340	248	243	251	257	180.5	39.7	140.8	—	902.0		99.3	259.9	714.2
1980–1	363	300	363	300	294	302	308	329.4	205.1	123.2	—	989.1		54.6	359.6	789.4
1981–2	381	320	381	320	313	321	329	452.2	239.8	180.7	61.1	1,159		112.0	560.4	969.1
1982–3	405	355	405	356	347	357	365	604.9	573.1	9.9	9.3	1,515		65.2	1,060.6	1,323.1
1983–4[2]	430	365	430	366	356	368	375	630			192.0	1,399		379.1	611.2	1,210.5
1984–5[3]	438	330	438	332	323	334	343					1,425		175.7	657.3	1,047.6
1985–6[3]	438	330	438	332	323	334	343									

[1] The national average loan rate at the farm as a percentage of the parity-priced wheat at the beginning of the marketing year. [2] Preliminary. [3] Estimate. *Source: Agricultural Marketing Service, U.S.D.A.* T.741

Exports of Wheat (Only) from the United States In Millions of Bushels

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1978–9	106.1	131.9	118.3	113.0	92.3	90.0	70.4	67.1	75.5	77.0	76.8	102.2	1,120.6
1979–0	133.3	117.8	129.6	149.0	108.9	114.9	82.7	89.5	94.7	98.3	88.6	96.2	1,305.5
1980–1	123.6	139.6	136.0	116.2	112.2	131.9	129.9	124.4	128.8	127.7	76.0	124.5	1,470.8
1981–2	138.1	145.4	194.1	156.9	127.5	137.4	124.2	138.7	159.1	147.4	114.8	155.7	1,739.3
1982–3	117.9	124.0	130.8	98.5	94.1	88.5	143.1	146.3	131.1	111.8	95.3	112.0	1,393.0
1983–4	115.8	87.5	119.2	114.8	102.3	128.4	118.3	111.0	118.7	94.3	111.7	104.8	1,326.8
1984–5[1]	133.3	146.0	242.4	136.9	96.1	131.4	105.3	81.8	57.4	65.0	55.8	79.1	1,330.5
1985–6[1]	63.6	85.6	72.0	85.6	81.3	60.5	68.6	67.7					

[1] Preliminary. *Source: Department of Commerce* T.738

United States Wheat and Wheat Flour Imports and Exports In Thousands of Bushels

	Imports					Exports						
	Wheat					Public Law 480						
Year Beginning June	Suitable for Milling	Unfit for Human Consumption	Flour (Wheat Equivalent)	Other Pdt's[2] (Wheat Equivalent)	Total	Sales for Foreign Currency[3]	Long-Term $ & Conver for Cur Credit Sales	Gov't to Gov't Donations[4]	Donations Thru Voluntary Relief Agencies	Barter for Strategic Materials	Mutual Security (A.I.D.)[5]	Total Specified Gov't Programs
1979-80	155	50	62	1,869	2,136	—	107,288	8,724	7,064	—	2,147	125,218
1980-81	128	58	200	2,148	2,534	—	101,052	9,659	7,158	—	153	118,022
1981-82	59	14	357	2,423	2,853	—	110,046	14,312	8,614	—	—	132,972
1982-83	3,901	35	624	3,036	7,596	—	113,322	22,081	8,724	—	6,805	150,932
1983-84[1]	67	11	336	3,426	3,840	—	119,838	6,000	4,915	—	—	130,753

[1] Preliminary. [2] Includes macaroni, semolina & similar pdt's. [3] Authorized by title, I, P.L. 480. [4] Author. by title II, P.L. 480. [5] Foreign Assist. Act of 1961. *Source: Economic Research Service, U.S.D.A.* T.732

Wheat Stocks in the United States In Millions of Bushels

	On Farms				Off Farms				Total Stocks			
Year	Jan. 1	Apr. 1	June 1[2]	Oct. 1	Jan. 1	Apr. 1	June 1[2]	Oct. 1	Jan. 1	Apr. 1	June 1[2]	Oct. 1
1980	773.9	569.6	376.5	975.9	942.2	655.5	525.5	1,497.6	1,716.2	1,225.1	902.0	2,473.5
1981	754.0	539.1	414.4	1,197.7	1,150.3	790.1	574.7	1,529.8	1,904.2	1,329.1	989.1	2,727.5
1982	948.7	742.6	576.2	1,402.3	1,223.4	809.0	583.2	1,567.2	2,172.1	1,551.6	1,159.4	2,969.5
1983	1,150.5	870.8	668.9	1,235.9	1,355.6	991.2	846.1	1,719.3	2,506.2	1,862.0	1,515.1	2,955.2
1984	1,015.4	771.2	591.7	1,217.3	1,311.0	986.9	807.0	1,522.7	2,326.4	1,758.1	1,398.6	2,740.0
1985[1]	930.3	713.4	582.1	1,248.4	1,210.8	953.7	843.2	1,722.7	2,141.0	1,667.1	1,425.2	2,971.1
1986[1]	1,011.2	799.4			1,515.0	1,324.3			2,526.1	2,123.7		

[1] Preliminary. [2] Data prior to 1976 are *as of July 1.* *Source: Crop Reporting Board, U.S.D.A.* T.731

Commercial Stocks of Domestic Wheat[1] in the United States, at First of Month In Millions of Bushels

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1980-1	283.9	432.6	502.4	505.9	490.5	458.1	412.2	347.9	299.4	243.4	194.9	194.4
1981-2	312.2	427.0	472.0	487.4	476.9	425.8	395.6	352.4	285.1	254.3	218.2	204.9
1982-3	256.8	401.4	471.5	500.7	493.9	454.2	442.5	404.9	360.4	333.8	300.9	267.5
1983-4	285.0	403.1	462.1	477.0	442.0	385.4	334.9	294.9	273.0	255.1	236.6	212.4
1984-5	265.2	423.0	413.7	409.4	387.8	352.8	309.9	268.0	248.5	239.8	215.1	221.4
1985-6	312.5	434.8	474.8	510.9	504.2	473.9	446.3	435.7	413.0	400.3	399.0	

[1] Domestic wheat in store in public and private elevators in 39 markets and wheat afloat in vessels or barges at lake and seaboard ports, the first Saturday of the month. *Source: Department of Agriculture* T.746

Comparative Average Cash Wheat Prices In Dollars per Bushel

					Minneapolis				Export Prices ($ per Metric Ton)					
Crop Year— June to May	Received by U.S. Farmers	No. 2 Soft Red Winter Chicago	No. 1 Hd. Red Ordin. Prot. Kansas City	No. 2 Soft Red Winter St. Louis	No. 1 Dark Northern Spring	No. 1 Hard Amber Durum	No. 1 Soft Portland Oregon	No. 2 Western White Pacific N.W.	No. 2 White Soft Toledo	Gulf No. 1 H.R. Winter Ports	Gulf No. 1 Soft Red Win.	Duluth No. 2 No. Spr.	Portland No. 2 White West	Rotterdam[3] C.I.F. U.S. No. 2 Hd. Winter
1980-1	3.91	4.33	4.45	4.39	4.71	6.81	4.36	3.94	4.08	178	171	172	166	215
1981-2	3.65	3.74	4.27	3.66	4.29	4.61	4.20	3.82	3.70	171	144	161	158	194
1982-3	3.55	3.32	3.94	3.32	4.09	4.25	4.39	3.93	3.33	158	128	152	165	178
1983-4[1]	3.53	3.56	3.84	3.62	4.30	4.83	3.95	3.58	3.48	153	140	159	148	186
1984-5[1]	3.38	3.51	3.74	3.57	4.06	4.44	3.82	3.44	3.42					

[1] Preliminary. [2] Estimate. *Source: Economic Research Service, U.S.D.A.* T.733

Open Interest of All Wheat Futures Contracts at Chicago,[1] K.C. & Mpls. In Millions of Bushels

	End of Month[1]												Kansas City[3]		Minn.[2]
Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. 1	July 1	Jan. 1
1981	291.1	236.5	211.7	209.8	243.0	283.1	324.4	329.5	337.3	384.7	368.7	312.9	142.6	80.7	28.7
1982	335.9	274.7	244.5	234.9	253.2	235.5	277.6	254.8	238.9	218.7	186.8	182.3	137.0	97.7	28.7
1983	193.9	155.5	194.9	172.2	191.7	223.0	294.0	348.1	329.7	300.3	282.3	304.3	118.5	106.0	21.3
1984	291.5	281.3	288.9	248.4	256.7	215.3	246.6	233.0	217.9	222.5	209.9	213.3	89.0	92.8	23.7
1985	197.9	191.7	176.2	189.6	201.6	191.4	189.2	186.3	163.4	152.3	144.2	158.9	95.4	130.9	21.6
1986	167.4	162.8	164.1	183.5	167.0										

[1] Chicago Board of Trade. [2] Minneapolis Grain Exchange. [3] Kansas City Board of Trade. *Source: Commodity Futures Trading Commission* T.748

WHEAT

United States Wheat Quarterly Supply and Disappearance In Millions of Bushels

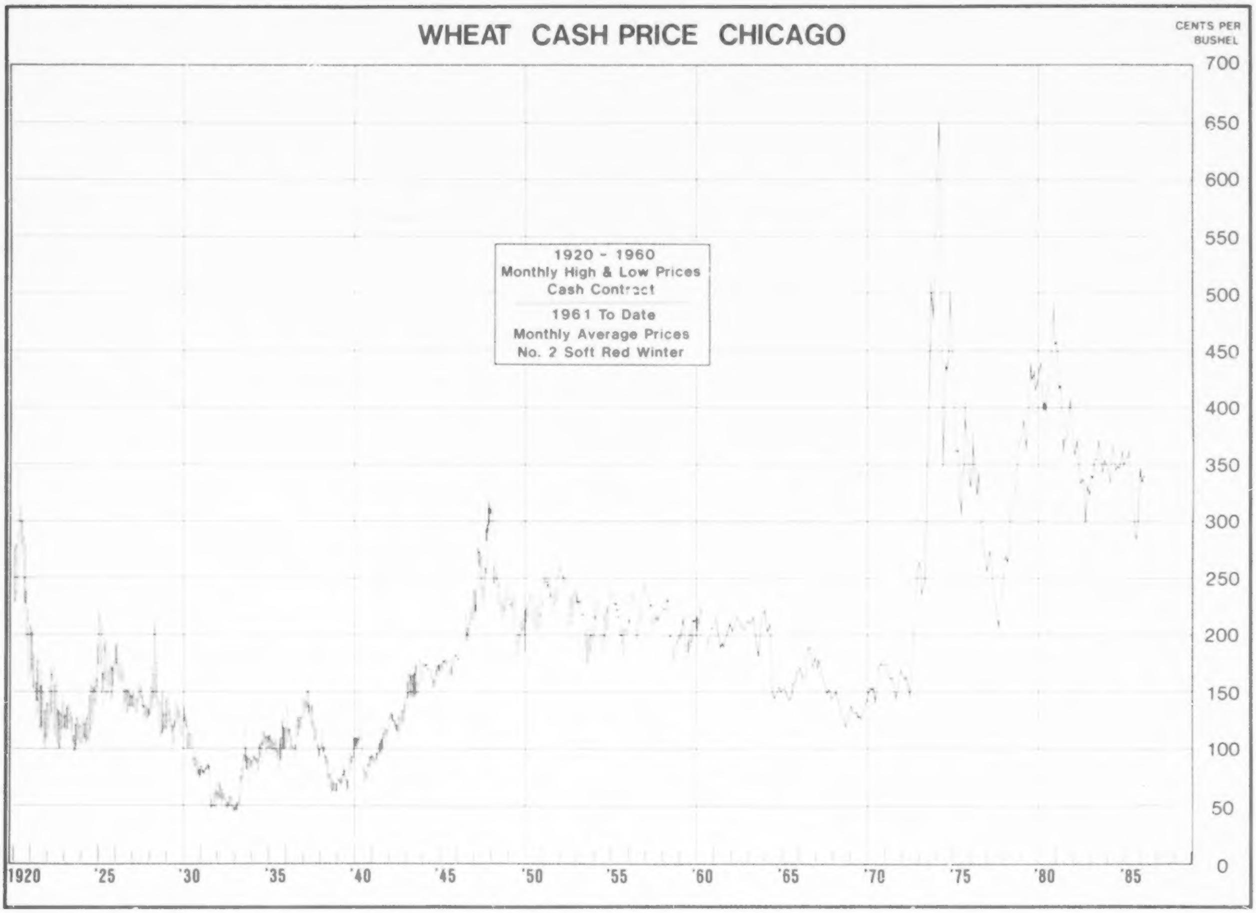
Year & Begin June 1	Supply				Disappearance							Ending Stocks		
					Domestic Use									
	Beginning Stocks	Production	Imports[2]	Total Supply	Food	Alc. Beverages	Seed	Feed[3]	Total	Exports[2]	Total Disappearance	Gov't Owned[4]	Privately Owned[5]	Total Stocks
1979-0	924.1	2,134	2.1	3,060	596.1	—	101.0	86.0	783.1	1,375	2,158	141.7	760.3	902.0
June-Sept.	824.1	2,134	.7	3,059	198.5	[6]	33.0	45.6	277.1	511.0	788.1	49.9	2,221	2,271
Oct.-Dec.	2,271	—	.5	2,271	157.9	[6]	37.0	-27.7	167.2	387.9	555.1	49.6	1,667	1,716
Jan.-Mar.	1,716	—	.5	1,717	145.1	[6]	1.0	62.8	208.9	282.7	491.6	63.3	1,162	1,225
Apr.-May	1,225		.4	1,226	94.6	.1	30.0	5.3	129.9	193.6	323.5	141.7	760.3	902.0
1980-1	902.0	2,381	2.5	3,285	610.5	—	113.0	59.0	782.5	1,514	2,296	199.7	789.4	989.1
June-Sept.	902.0	2,381	.8	3,284	197.2	[6]	38.0	56.6	291.8	518.4	810.2	201.1	2,272	2,474
Oct.-Dec.	2,474	—	.6	2,474	167.1	[6]	43.0	-11.6	198.5	371.4	569.9	203.1	1,701	1,904
Jan.-Mar.	1,904	—	.7	1,905	150.1	[6]	1.0	24.3	175.4	400.4	575.8	202.6	1,127	1,329
Apr.-May	1,329	—	.4	1,330	96.1	[6]	31.0	-10.3	116.8	223.6	340.4	199.7	789.4	989.1
1981-2	989.1	2,785	2.8	3,777	602.4	[6]	110.0	134.8	847.2	1,771	2,618	190.3	969.1	1,159
June-Sept.	989.1	2,785	.7	3,775	202.5	[6]	37.0	186.4	425.9	621.8	1,048	191.6	2,536	2,728
Oct.-Dec.	2,728	—	.8	2,728	159.0	[6]	45.0	-75.2	128.8	427.4	556.2	190.6	1,982	2,172
Jan.-Mar.	2,172	—	.8	2,173	151.7	[6]	1.0	27.6	180.3	441.0	621.3	189.1	1,362	1,551
Apr.-May	1,552	—	.5	1,552	89.2	[6]	27.0	-4.0	112.2	280.5	392.7	190.3	969.1	1,159
1982-3	1,159	2,765	7.6	3,932	616.4	[6]	97.0	194.9	908.3	1,509	2,417	192.0	1,323	1,515
June-Sept.	1,159	2,765	1.2	3,926	206.4	[6]	37.0	167.1	410.5	545.6	956.1	190.6	2,779	2,970
Oct.-Dec.	2,970	—	3.0	2,973	161.8	[6]	40.0	-28.1	173.7	292.6	466.3	185.4	2,321	2,506
Jan.-Mar.	2,506	—	2.7	2,509	151.4	—	1.0	52.4	204.8	442.1	646.9	185.2	1,677	1,862
Apr.-May	1,862	—	.7	1,863	96.8	—	19.0	3.5	119.3	228.3	347.6	192.0	1,323	1,515
1983-4	1,515	2,420	4.0	3,939	642.6		100.0	369.1	1,112	1,429	2,540	188.1	1,211	1,399
June-Sept.	1,515	2,420	1.2	3,936	214.2	—	37.0	254.4	505.6	475.3	980.9	157.5	2,798	2,955
Oct.-Dec.	2,955	—	.9	2,956	163.7	—	41.0	62.4	267.1	362.6	629.7	165.6	2,161	2,326
Jan.-Mar.	2,326	—	1.1	2,328	163.0	—	1.0	41.0	205.0	364.4	569.4	167.1	1,591	1,758
Apr.-May	1,758	—	.8	1,759	101.7	—	21.0	11.3	134.0	226.3	360.3	188.1	1,211	1,399
1984-5[1]	1,399	2,596	9.4	4,004	650.1	—	93.0	411.0	1,154	1,424	2,578	415.0	1,048	1,425
June-Sept.	1,399	2,596	4.7	3,999	212.8	—	32.0	366.5	611.3	644.7	1,256	325.2	2,418	2,743
Oct.-Dec.	2,743	—	1.7	2,745	166.8	—	37.0	25.4	229.2	374.3	603.5	371.8	1,769	2,141
Jan.-Mar.	2,141	—	1.2	2,142	165.0	—	1.0	43.0	209.0	266.1	475.1	386.1	1,281	1,667
Apr.-May	1,667	—	1.8	1,669	105.5	—	23.0	-23.9	104.6	139.1	243.7	377.6	1,048	1,425
1985-6[7]	1,425	2,425	12.0	3,862	660.0	—	90.0	325.0	1,075	950.0	2,025	640.0	1,197	1,837
June-Sept.	1,425	2,425	6.1	3,856	222.8	—	35.0	300.6	558.4	326.6	885.8	428.5	2,543	2,971
Oct.-Dec.	2,971	—	4.0	2,975	177.0	—	31.0	-16.6	191.4	247.3	438.7	498.8	2,038	2,536
Jan.-Mar.														

[1] Preliminary. [2] Imports & exports include flour and other products expressed in wheat equivalent. [3] Residual. [4] Uncommitted, Gov't only. [5] Includes total loans. [6] Less than 50,000 bushels. [7] Projected. *Source: Economics Research Service, U.S.D.A.* T.740

Wheat Supply and Distribution in Canada, Australia and Argentina In Millions of Metric Tons

Crop Year	Canada (Yr. Beg. Aug. 1)					Australia (Yr. Beg. Dec. 1)					Argentina (Yr. Beg. Dec. 1)				
	Supply			Disappearance		Supply			Disappearance		Supply			Disappearance	
	Stocks Aug. 1	New Crop	Total Supply	Domestic	Exports[1]	Stocks Dec. 1	New Crop	Total Supply	Domestic	Exports[1]	Stocks Dec. 1	New Crop	Total Supply	Domestic	Exports[1]
1976-7	8.2	23.6	31.8	5.0	13.4	2.7	11.7	14.4	2.8	9.5	.7	11.0	11.7	4.2	5.9
1977-8	13.3	19.9	33.2	5.1	16.0	2.1	9.4	11.5	2.6	8.1	1.6	5.7	7.3	4.3	1.8
1978-9	12.1	21.1	33.2	5.3	13.1	.8	18.1	18.9	2.5	11.7	1.2	8.1	9.3	4.1	4.1
1979-0	14.9	17.2	32.1	5.5	15.9	4.6	16.2	20.8	3.4	13.2	1.1	8.1	9.2	4.0	4.8
1980-1	10.7	19.2	29.9	5.0	16.3	4.3	10.9	15.2	3.5	9.6	.4	7.8	8.2	3.9	3.8
1981-2	8.6	24.8	33.4	5.2	18.4	2.0	16.4	18.4	2.6	11.0	.4	8.3	8.7	4.3	3.6
1982-3	9.8	26.7	36.5	5.1	21.4	4.8	8.9	13.7	4.1	7.3	.8	15.0	15.8	4.8	9.9
1983-4	10.0	26.5	36.5	5.6	21.8	2.3	22.0	24.3	3.4	13.3	1.1	12.8	13.9	4.7	7.8
1984-5[2]	9.0	21.2	30.2	5.4	17.5	7.6	18.3	25.9	3.3	14.0	1.3	13.2	14.5	4.6	9.4
1985-6[3]	7.5	23.9	31.4	5.9	18.0	8.6	16.5	25.1	3.0	15.5	.5	8.5	9.0	4.4	4.2
1986-7[3]	7.5					6.6					.4				

[1] Including flour. [2] Preliminary. [3] Forecast. *Source: Foreign Agricultural Service, U.S.D.A.* T.725



Average Price of No. 2 Soft Red Winter (30 Days) Wheat at Chicago In Dollars per Bushel

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average
1976-7	3.47	3.37	3.01	2.89	2.72	2.60	2.66	2.73	2.74	2.63	2.53	2.35	2.81
1977-8	2.29	2.20	2.08	2.20	2.27	2.59	2.65	2.69	2.64	2.82	3.11	3.14	2.56
1978-9	3.18	3.22	3.32	3.42	3.51	3.68	3.68	3.73	3.88	3.79	3.60	3.86	3.57
1979-0	4.36	4.39	4.23	4.28	4.30	4.13	4.26	4.36	4.39	4.18	3.96	4.04	4.24
1980-1	3.96	4.17	4.21	4.38	4.70	4.92	4.54	4.57	4.34	4.15	4.18	3.80	4.33
1981-2	3.60	3.70	3.70	3.87	3.97	4.08	3.86	3.77	3.57	3.59	3.70	3.43	3.74
1982-3	3.31	3.36	3.35	3.18	2.98	3.33	3.23	3.32	3.40	3.36	3.51	3.55	3.32
1983-4	3.53	3.59	3.71	3.62	3.56	3.42	3.55	3.47	3.34	3.57	3.65	3.65	3.56
1984-5	3.51	3.44	3.49	3.47	3.51	3.62	3.49	3.51	3.55	3.55	3.63	3.34	3.51
1985-6	3.27	3.09	2.87	2.83	3.04	3.33	3.46	3.34	3.37	3.40	3.39		

Source: Agricultural Marketing Service, Grain Division, U.S.D.A. T.745

Stocks of Wheat Flour Held by Mills in the United States In Thousands of Sacks (100 Pounds)

Year	Jan. 1	April 1	July 1	Oct. 1	Year	Jan. 1	April 1	July 1	Oct. 1
1977	1,334	4,248	4,167	3,537	1982	3,460	3,384	3,744	3,563
1978	4,160	4,096	3,459	3,342	1983	4,276	3,760	3,490	3,599
1979	3,214	3,477	3,895	3,813	1984	3,805	3,780	3,763	3,833
1980	3,975	3,323	4,268	3,716	1985[1]	4,230	4,303	4,980	4,992
1981	3,842	3,897	3,895	4,222	1986[1]	4,787			

[1] Preliminary. *Source: Department of Commerce* T.755

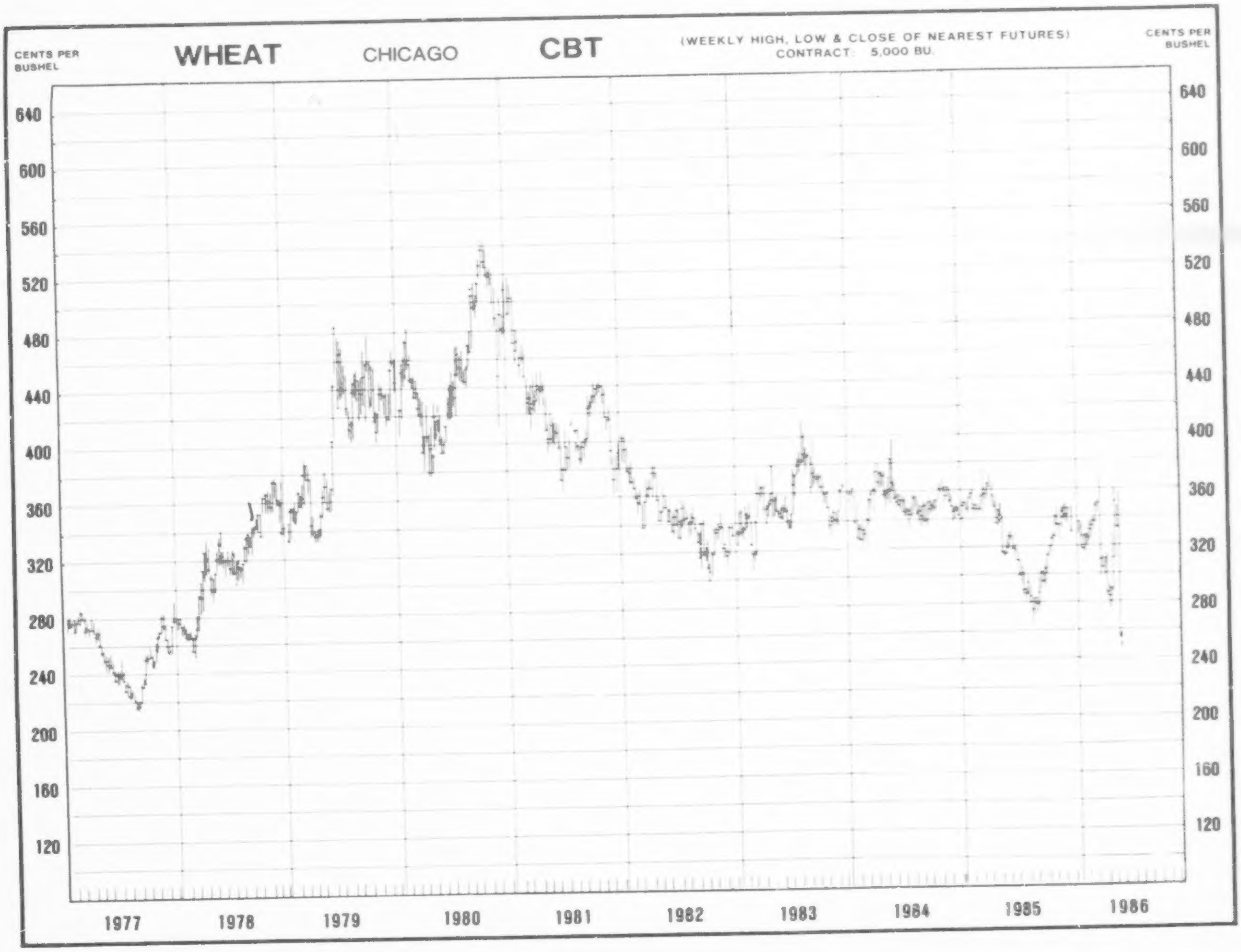
WHEAT

High, Low & Closing Prices of May Wheat Futures on the Chicago Board of Trade In Cents per Bushel

Year of Delivery		Year Prior to Delivery									Delivery Year					Life of Delivery Range
		Apr.	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	
1981	High	477	490	482½	503½	506	541½	570½	563½	553½	526	487	451	451	439½	570½
	Low	440½	451	444	462½	482½	502	517	541¼	455½	465	455	418½	426	393	393
	Close	450	453½	470	500¾	502¼	531	554¼	553¼	510¼	471¼	457½	433¾	433¾	398	—
1982	High	526	510	489	491	484½	465	476½	478½	453½	412	400½	375½	382½	360	526
	Low	500	479	447	455	446½	447	455	444½	384	382	360½	345	357	342	342
	Close	506	487	454	476	449½	458	474¼	447¾	400¾	391¾	366¾	370¼	357	354	—
1983	High	444¼	434½	411	403½	399	390½	354¼	368¼	355	356¾	363½	370½	366¼	360½	444¼
	Low	423	406¼	388½	381	374	343¼	327¼	338½	333¼	330½	318½	322¼	338¼	341¾	318½
	Close	431	406¼	395	392	383¼	349½	337¾	353¾	338½	351½	321½	360¼	351¼	346¾	—
1984	High	415	403	388	401¼	441	432	392½	376	365½	359	333¾	375	380	397	441
	Low	396	380¼	375¾	372½	397	386	364¾	347½	347	329¾	324½	330	349½	348½	324½
	Close	399	380¼	379½	398	431¼	390½	369½	355	360½	334	331¼	374	350¾	396½	—
1985	High	383½	405	392½	387	388	363	363½	362½	349¼	347¾	350	361¼	371½	349½	405
	Low	372	367¼	373½	369	355¼	350	351¼	347¼	334½	332½	333¾	335½	345	319¾	319¾
	Close	372	390½	385½	381½	357	353¾	361	349	341	343½	336¼	356½	349	320¾	—
1986	High	350	338¼	328¾	316	305	303	315	319½	326½	320½	294	312			
	Low	335	316	314	286½	284	286½	294½	305¼	308½	281	274	285¼			
	Close	338¼	316	314	291¾	291½	300	311½	311¼	321	288¼	286¼	304¼			

Source: Chicago Board of Trade

T 750



Average Price of No. 1 Hard Winter (Ordinary Protein) Wheat, at Kansas City In Cents per Bushel

Year	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Average
1978-9	314	314	324	342	348	339	342	350	352	353	364	417	338
1979-0	434	412	426	439	453	451	433	432	407	390	410	407	425
1980-1	421	431	445	470	489	454	460	447	435	448	436	424	445
1981-2	425	414	419	431	446	435	433	426	425	428	422	406	427
1982-3	374	370	375	361	386	398	400	408	418	421	405	392	392
1983-4	371	388	390	384	382	385	381	371	385	393	372	380	383
1984-5	367	380	389	386	385	376	376	374	367	362	342	338	374
1985-6	317	303	307	315	335	342	332	330	336	345			

Source: Agricultural Marketing Service, U.S.D.A. T.739

Average Price of No. 1 Dark Northern Spring Wheat at Minneapolis (14% Protein) In Cents per Bushel

Year	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Average
1978-9	311	313	326	341	347	332	330	336	342	345	373	432	335
1979-0	442	419	429	445	429	417	407	408	402	396	431	433	421
1980-1	469	455	456	482	495	477	481	478	467	480	477	456	471
1981-2	450	425	423	429	438	422	428	421	416	425	420	413	429
1982-3	416	396	402	400	408	396	393	392	408	440	440	439	409
1983-4	438	434	433	433	425	421	417	408	424	437	445	445	430
1984-5	434	407	397	403	402	392	390	392	394	409	402	399	406
1985-6	377	356	376	391	409	416	397	390	400	417			

Source: Agricultural Marketing Service, U.S.D.A. T.742

Average Price[1] Received by Farmers for Wheat in the U.S. In Cents per Bushel

Year	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Average[2]
1979-0	389	374	387	398	394	381	374	378	364	358	369	369	382
1980-1	381	394	399	419	432	422	421	417	409	407	395	370	391
1981-2	362	362	365	377	385	380	378	370	367	368	364	339	365
1982-3	326	334	338	343	348	351	357	357	366	375	373	350	355
1983-4	334	361	365	361	354	348	350	340	349	363	366	346	353
1984-5	328	343	343	343	345	338	338	338	338	343	330	309	338
1985-6	293	289	301	309	323	325	319	315	328	336	316		

[1] Weighted average by sales. [2] Includes an allowance for unredeemed loans at average loan values. *Source: Statistical Reporting Service, U.S.D.A.* T.743

Average Wholesale Price Index of Wheat Flour (Spring[1]) June 1983 = 100[2]

Year	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Average
1978-9	8.250	7.938	7.825	7.900	8.400	8.138	7.813	8.038	8.313	8.300	9.013	9.288	8.268
1979-0	10.638	10.513	10.463	10.563	10.713	10.438	10.088	10.413	10.113	9.688	10.375	10.338	10.362
1980-1	11.025	10.963	10.975	11.113	11.138	—	11.050	11.113	10.975	11.100	11.075	11.125	11.059
1981-2	10.813	10.750	10.588	10.525	10.675	10.338	10.763	10.950	10.738	10.538	10.550	10.500	10.644
1982-3	10.538	10.188	10.475	10.388	10.463	10.450	10.163	10.300	10.753	10.813	10.950	11.213	10.558
1983-4[2]	99.9	99.6	100.0	98.4	96.6	96.1	96.4	95.8	97.0	99.3	98.8	100.6	98.2
1984-5	99.5	96.9	96.9	97.3	97.7	96.8	98.2	98.7	98.2	100.3	97.0	96.3	97.8
1985-6	94.7	93.1	93.7	94.1	96.7	96.8	96.2						

[1] Standard patent. [2] Data prior to July 1983 are in $ per cwt. (bulk) at mpls. *Source: Bureau of Labor Statistics* (0212-0301.99) T.758

World Wheat Flour Production In Thousands of Metric Tons

Year	Argentina	Australia[2]	Canada	France	India[3]	Mexico	Israel	Japan	W. Germany	Egypt	Poland	South Africa	Un. Kingdom	United States	Yugoslavia
1978	2,524	1,062	1,951	3,385	2,660	1,814	490	4,013	2,447	3,480	2,324	940	3,848	12,606	2,388
1979	2,482	1,039	1,978	3,467	1,636	1,951	476	4,150	2,528	3,492	2,533	901	3,785	12,884	2,400
1980	2,438	1,044	1,930	3,488	2,410	2,147	455	4,184	2,713	3,188	2,642	890	3,702	12,822	2,404
1981	2,456	1,069	1,900	3,481	2,327	2,422	464	4,184	2,601	3,512	2,815	718	3,596	12,884	2,330
1982	2,550	1,086	1,750	3,454	2,404	2,484	498	4,367	2,480	3,550	2,827	726	3,504	13,049	2,442
1983	2,678	1,055	1,702	4,386	3,092	2,435	506	4,356	2,280	3,686	2,539	694	3,420	13,883	2,414
1984[1]	2,851	1,138		4,632	3,328	2,446	516	4,439	3,500	3,707		727	3,604	13,584	2,350
1985[4]		1,100		4,600	3,200	2,400	530	4,350	3,700	3,600		690	3,800	13,700	2,250

[1] Preliminary. [2] Twelve months ending June 30 of the year stated. [3] Represents 60 percent of the total production. [4] Estimate. *Source: United Nations* T.752

Wheat and Flour—Price Relationships at Milling Centers (In Dollars)

Crop Year (June-May)	At Kansas City					At Minneapolis				
		Wholesale Price of					Wholesale Price of			
				Total Products					Total Products	
	Cost of Wheat to Produce 100 lb. Flour[1]	Bakery Flour Per 100 lb.[2]	By-Products Obtained 100 lb. Flour[3]	Actual	Over Cost of Wheat	Cost of Wheat to Produce 100 lb. Flour[1]	Bakery Flour Per 100 lb.[2]	By-Products Obtained 100 lb. Flour[3]	Actual	Over Cost of Wheat
1977-8	6.56	6.76	1.26	8.02	1.46	6.73	7.49	1.20	8.69	1.96
1978-9	7.85	7.89	1.47	9.36	1.51	7.76	8.22	1.34	9.56	1.80
1979-0	9.85	10.02	1.70	11.72	1.87	9.73	10.26	1.51	11.77	2.04
1980-1	10.30	10.38	1.99	12.37	2.07	10.95	11.00	1.78	12.78	1.83
1981-2	9.81	10.37	1.57	11.94	2.13	9.80	10.67	1.41	12.08	2.28
1982-3	9.46	10.22	1.52	11.74	2.28	9.45	10.54	1.26	11.80	2.35
1983-4	9.45	9.99	1.83	11.69	2.37	9.84	10.75	1.59	12.33	2.49
1984-5[4]	8.91	9.77	1.32	11.10	2.18	9.31	10.84	1.01	11.85	2.54
Jun.-Sep. '85	8.61	8.89	1.10	9.99	1.98	8.68	10.96	.78	11.74	3.06
Oct.-Dec. '85	8.37	9.10	1.39	10.48	2.11	9.24	11.61	1.06	12.67	3.43
Jan.-Mar. '86	8.37	9.33	1.10	10.43	2.06	9.05	11.69	.83	12.53	3.48

[1] Cost of 2.28 bushels. [2] Quoted as 95% patent at K.C. & standard patent at Minn., bulk basis. [3] Assumes 50-50 millfeed distribution between bran & shorts or middlings, bulk basis. [4] Preliminary. *Source: Economic Research Service, U.S.D.A.* T.751

United States Wheat Flour Production In Millions of Sacks (100 Pounds Each)

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1978-9	22.3	25.1	22.5	24.8	23.7	21.9	22.8	21.5	23.5	22.3	24.6	22.5	277.5
1979-0	23.5	26.3	23.3	26.1	24.8	22.7	24.6	22.6	22.2	21.2	22.8	21.4	281.5
1980-1	23.1	24.0	24.8	26.3	24.4	25.2	24.2	22.8	25.0	24.0	23.4	23.5	290.7
1981-2	23.3	23.7	24.2	24.7	22.8	22.3	24.5	24.0	25.8	22.9	22.3	22.9	283.4
1982-3	23.6	25.2	24.7	25.5	24.4	25.0	24.9	23.8	27.3	24.6	26.2	25.5	300.7
1983-4	25.1	29.4	27.9	26.6	25.4	24.9	24.8	25.5	25.9	24.1	26.6	24.3	310.5
1984-5[1]	22.8	26.0	24.4	26.3	25.1	23.7	25.5	25.6	26.3	24.7	26.1	24.1	300.6
1985-6[1]	24.2	27.2	26.8	29.0	28.3	25.2	27.3						

[1] Preliminary. *Source: Bureau of the Census.* T.754

United States Wheat Flour Exports In Thousands of 100 Pound Sacks

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1978-9	1,674	2,145	1,963	1,505	357	486	382	1,165	1,163	752	2,689	1,727	16,008
1979-0	1,669	2,489	2,218	1,223	842	1,971	1,018	1,300	2,713	867	918	1,606	18,833
1980-1	894	2,137	1,396	1,034	522	609	980	1,896	2,241	2,932	1,724	2,350	18,715
1981-2	987	1,420	724	284	117	184	605	2,165	2,336	2,858	1,760	944	14,384
1982-3	352	1,196	698	593	824	185	1,587	3,734	2,692	4,256	3,193	4,172	23,482
1983-4	3,293	3,095	3,621	3,469	1,122	395	830	883	2,842	2,802	3,213	2,457	28,022
1984-5[1]	1,716	285	433	1,122	121	222	138	2,384	1,857	2,663	1,548	693	13,182
1985-6[1]	846	381	132	1,232	1,079	2,569	1,374	2,312					

[1] Preliminary. *Source: Department of Commerce.* T.756

Supply and Distribution of Wheat Flour in the United States In Thousands of Cwt.

Year	Wheat Ground	Millfeed Production	Flour Production[1]	Flour & Product Imports[2]	Total Supply	Exports		Domestic Disappearance	Total Population July 1	Per Capita Disappearance
						Flour	Products[2]			
	1,000 Bu.	1,000 Tons	1,000 Cwt.						Millions	Pounds
1977	618,125	4,787	275,784	604	276,388	22,053	37	254,298	220.2	115
1978	621,321	4,860	277,950	773	278,723	22,170	43	256,510	222.6	115
1979	636,375	4,945	284,051	823	284,874	20,927	86	263,861	225.1	117
1980	628,599	4,866	282,655	904	283,559	17,378	54	266,127	227.7	117
1981	634,381	5,045	283,966	1,166	285,132	18,655	84	266,393	229.8	116
1982	667,841	5,573	297,288	1,496	298,784	20,926	154	277,704	232.1	119
1983	686,983	5,563	306,066	1,109	307,175	34,969	150	272,056	234.3	116
1984	674,665	5,420	299,476	1,179	300,655	21,752	160	278,743	236.7	118
1985[3]	698,355	5,502	313,001	1,144	314,145	20,766	140	293,239	237.8	123

[1] Commercial production of wheat flour, whole wheat, industrial and durum flour and farina reported by Bureau of Census. [2] Imports and exports of macaroni products (flour equivalent). [3] Preliminary. *Source: Economics & Statistics Service, U.S.D.A.* T.753

Wool

Worldwide production of wool, which amounted to 3.62 billion pounds, clean, in the 1983/84 season, was estimated at 3.68 billion pounds for the 1984/85 season, a gain of 1.7 percent. The world's sheep population continued to grow—it numbered 1.106 billion at latest count—but unfavorable growing conditions in the leading sheep-raising areas reduced fleece weights. For the 1985/86 season, output of wool was expected to rise in Australia, South America, South Africa, the United Kingdom and Pakistan, but those increments were projected to be nearly offset by output reductions in New Zealand, the U.S.S.R., China and the United States.

Total world supply of wool, including the carryover from the previous year, was expected to amount to an estimated 4.04 billion pounds during the 1985/86 season, about 2 percent below 1984/85. The expected decline's apparent cause is a cutback of about 18 percent in the carry-in from 1984/85, when stocks fell 18 percent in Australia, 58 percent in New Zealand, and 85 percent in South Africa.

The state buying agencies for both Australia and New Zealand raised their minimal floor prices for wool, effective in the 1985/86 season. In Australia, the floor price was raised 6.4 percent to A500 cents per kilogram and in New Zealand the increase was 4.7 percent to NZ443 cents per kilogram.

In the United States, estimated output for 1985 was 45.5 million pounds, down nearly 9 percent from 1984. However, the carry-in from 1984 was 63.1 million pounds, which was up from the prior year by about 5 percent and, in absolute terms, was about equal to the year-over-year drop in output. All the same, total supply in 1985 was 24.9 million pounds fewer than in 1984, almost entirely because of a sharp fall-off (22.0 million pounds or 23.4 percent) in imports.

Even as supply of wool was shrinking, so was total usage. Wool used by mills fell from 142 million pounds in 1984 to 117 million pounds in 1985, a reduction of almost 18 percent. Exports rose, but so slightly—and they are but a tiny fraction of total usage—that it made almost no difference to aggregate consumption. Unsurprisingly, therefore, the average selling price of wool sagged from a weighted seasonal average in 1984 of 79.5 cents per pound to an estimated 69.0 cents in 1985.

The National Wool Act of 1954, as amended, was extended through 31 December 1985. Just how important that price-supporting legislation is, is shown by USDA's data to the effect that during 1982/84 wool price-support payments constituted 16 percent to 20 percent of the average sheep-raiser's income. Without the support payments, wool-sheep producers would have lost an average of $8.97 per ewe in 1982 and $5.47 per ewe in 1983. In 1984 there would have been an average profit per ewe of $1.94 *without* a support program, but under the program the average gain in 1984 was $13.40.

Futures Markets

Greasy merino wool futures are traded on the Sydney Futures Exchange, and New Zealand crossbred futures are traded in London.

World Production of Wool[3] In Thousands of Metric Tons (Greasy Basis)

Year	Brazil	Argentina	Australia	China	France	Morocco	India	N. Zealand	Spain	Turkey	South Africa	Un. Kingdom	United States	Uruguay	USSR	World Total
1976	30.3	176.3	702.7	61.0	22.0	21.0	32.0	302.5	28.6	53.9	110.5	49.9	53.8	60.4	432.0	2,457
1977	26.9	172.0	677.4	61.0	22.4	20.0	33.1	310.8	28.0	54.1	113.4	48.0	49.9	62.2	455.0	2,465
1978	28.0	170.8	709.2	61.0	22.6	12.0	34.2	310.8	29.0	56.7	113.4	49.2	46.2	65.8	460.0	2,433
1979	31	166	709	153	26	21	35	357	29	59	110	48	48	72	412	2,553
1980[2]	35	163	700	176	27	22	35	381	28	61	112	50	49	79	464	2,641
1981[2]	33	163	716	180	27	22	35	363	21	62	112	42	50	79	482	2,653
1982[1]			701					370							471	
1983[1]			672					370							474	

[1] Estimated. [2] Preliminary. [3] Includes shorn, pulled, & wool exported on skins. *Source: Foreign Agricultural Service, U.S.D.A.* T 760

Wool Goods[1] **Production in the United States** In Millions of Square Yards

Year	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year	Year	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
1980	45.2	46.8	31.9	34.4	158.3	1983	36.0	41.8	28.8	37.0	143.5
1981	50.6	52.9	39.0	35.5	178.1	1984[2]	48.6	44.3	29.7	36.7	159.4
1982	41.0	36.3	20.2	23.6	121.1	1985[2]	43.2	41.9	25.7	35.8	146.7

[1] Woolen and worsted woven goods, except woven felts. [2] Preliminary. *Source: Bureau of Census* T 763

WOOL

Salient Statistics of Wool in the United States

Year	Sheep & Lambs Shorn[2] Ths.	Weight per Fleece Lbs.	Shorn Wool Production Ths. Lbs.	Price per Lb.	Value of Production Mil. $	Pulled Wool Production — Avg. Weight per Skin Lbs.	Pulled Wool Production — Total	Total Wool Production[4]	Apparel Wool (Clean Content) — Domestic Prod.	Apparel Wool (Clean Content) — Exports Domestic Wool	Apparel Wool (Clean Content) — Imports for Consumption[4]	Apparel Wool (Clean Content) — Total New Supply[3]	Carpet Wool Imports for Cons.	Mill Consumption — Apparel	Mill Consumption — Carpet
							Thousand Pounds								
1979	13,069	8.02	104,867	86.3	90.5	3.20	900	105,767	56,022	313	20,283	75,992	22,047	106,533	10,513
1980	13,263	7.95	105,419	88.1	92.8	3.10	1,050	106,469	56,426	304	30,491	86,613	25,992	113,423	10,020
1981	13,493	8.14	109,787	94.4	103.7	3.05	1,150	110,937	58,806	307	48,106	106,605	26,145	127,752	10,896
1982	13,199	8.04	106,129	68.6	72.8			106,129	56,036	1,351	39,988	94,673	21,433	105,857	9,825
1983	12,865	8.00	102,886	61.2	63.0			102,886	54,324	1,014	49,371	102,681	28,688	126,729	13,851
1984[1]	12,015	7.74	92,944	79.5	73.9			92,944	49,074	488	62,271	110,857	30,905	128,982	13,088
1985[1]	11,200	7.83	88,000	63.3	55.7									107,341	11,751

[1] Preliminary. [2] Includes sheep shorn at commercial feeding yards. [3] Production minus exports plus imports; stocks not taken into consideration. [4] Apparel wool includes all dutiable wool; carpet wool includes all duty-free wool. *Sources: Economics Service, U.S.D.A.; Dept. of Commerce*

T.766

Consumption of Apparel Wool in the United States In Millions of Pounds (Clean Basis)

Year	Jan	Feb.	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1980	11.3	10.2	9.8	11.4	9.2	8.3	7.5	8.4	7.7	10.8	8.8	10.0	113.4
1981	10.2	11.0	12.9	10.8	10.2	12.8	8.4	10.1	11.4	9.4	9.4	11.2	127.8
1982	9.4	9.6	12.9	9.2	8.3	9.4	5.9	8.0	8.4	7.2	7.8	9.6	105.9
1983	8.5	9.3	12.4	10.2	9.4	13.0	8.5	10.0	12.3	10.7	10.7	11.8	126.7
1984	10.6	12.0	14.1	11.3	11.9	13.0	8.2	9.9	11.2	8.5	8.9	9.4	129.0
1985[1]	9.3	8.3	9.8	8.8	9.3	10.6	6.5	7.6	10.5	8.6	8.9	9.1	106.3
1986[1]	12.7												

[1] Preliminary. *Source: Bureau of the Census*

T.767

Average Wool Prices[1]—Australian—64's, Type 62, Duty Paid—U.S. Mills In Cents per Pound

Year	Jan.	Feb.	Mar	Apr	May	June	July	Aug.	Sept.	Oct.	Nov	Dec.	Average
1980	292	310	306	299	310	321	311	306	311	306	320	321	309
1981	319	312	307	314	316	319	323	320	316	316	317	312	316
1982	301	303	313	323	336	321	304	294	287	276	269	267	299
1983	273	271	266	266	262	262	260	262	263	271	270	266	266
1984	268	276	279	276	271	269	255	259	247	249	255	251	263
1985	246	233	236	227	234	229	230	226	224	224	217	222	219
1986	231	229	231										

[1] Raw, clean basis. *Source: U.S. Dept. of Agriculture*

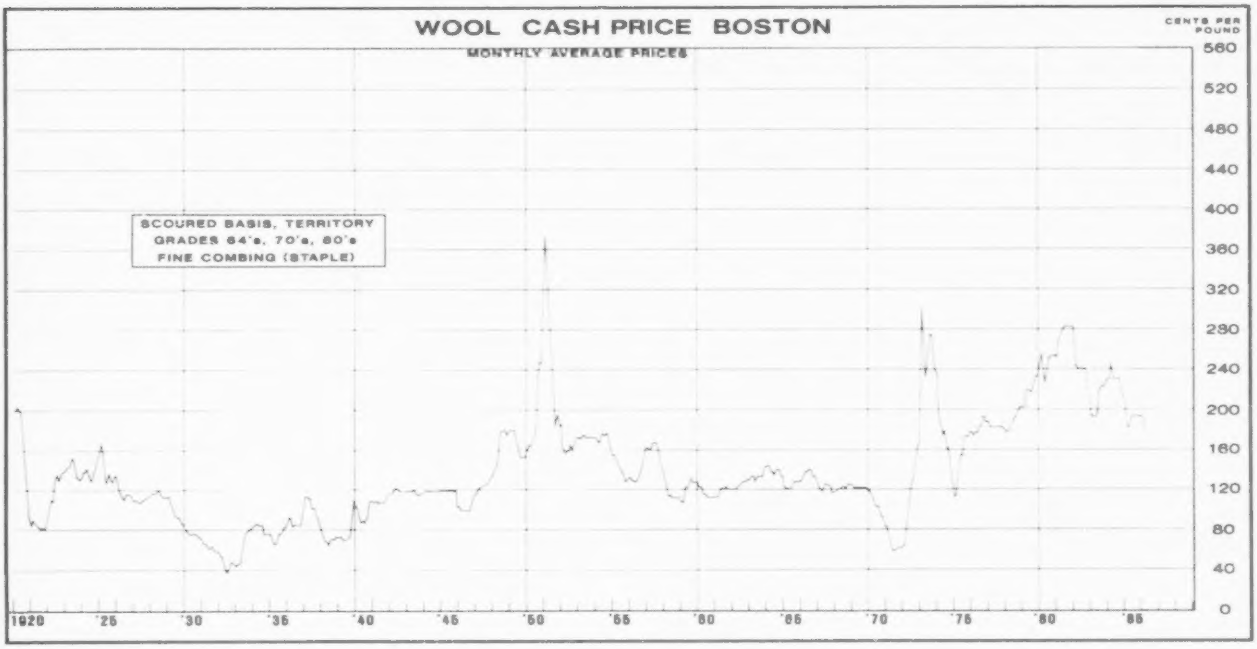
T.768

Average Wool Prices—Domestic[1]—Graded Territory, 64's, Staple 2¾'' & Up—U.S. Mills ¢/Lb.

Year	Jan	Feb.	Mar	Apr	May	June	July	Aug.	Sept	Oct	Nov.	Dec	Average
1972	62.5	64.0	70.8	94.4	113.0	120.0	127.0	127.5	135.0	145.5	163.5	165.0	115.7
1973	188.0	232.5	302.5	233.8	233.5	257.5	260.0	275.0	275.0	263.0	241.9	237.5	250.0
1974	236.0	222.5	197.5	185.0	174.0	178.8	166.5	161.2	162.5	156.5	141.2	130.8	176.0
1975	116.2	112.5	113.8	134.0	150.6	155.6	153.8	171.2	172.5	172.5	172.5	177.5	150.2
1976	177.5	177.5	173.5	176.2	177.5	177.5	182.5	182.5	187.5	192.5	192.5	187.5	182.1
1977	187.5	187.5	182.5	182.5	182.5	182.5	182.5	182.5	182.5	182.5	182.5	182.0	183.3
1978	182	178	178	181	184	192	192	192	195	197	202	202	190
1979	202	202	206	220	220	218	218	218	220	230	233	233	218
1980	238	253	256	231	225	233	245	251	253	253	253	253	245
1981	253	268	274	278	278	283	283	283	283	283	283	283	278
1982	275	263	244	240	240	240	240	240	240	—	—	—	247
1983	—	—	193	193	193	198	219	223	225	225	225	228	212
1984	230	230	230	245	234	230	230	230	230	221	218	214	228
1985	205	195	185	182	191	193	193	193	193	193	193	193	192
1986	193												

[1] Raw, shorn, clean basis. *Source: U.S. Dept. of Agriculture*

T.769



Wool: Mill Consumption, by Grades in the U.S. Scoured Basis In Millions of Pounds

	Apparel Wool[1]							
	Woolen System			Worsted System				
Year	60's & Finer	50's Up to 60's	Total	60's & Finer	Coarser Than 60's	Total	All Total	Carpet Wool[2]
1980	28.2	28.8	57.0	35.5	20.9	56.4	113.4	10.0
1981	35.2	29.3	64.5	41.2	22.0	63.3	127.8	10.9
1982[3]	23.8	24.6	48.4	36.2	21.3	57.5	105.9	9.8
1983[3]	30.5	30.2	60.7	42.5	23.5	66.0	126.7	13.9
1984[3]	32.9	32.3	65.2	41.6	22.2	63.8	129.0	13.1
1985[3]							107.3	11.8

[1] Domestic & Duty-Paid Foreign. [2] Duty-Free Foreign. [3] Preliminary. *Source: Economic Research Service, U.S.D.A.* T.762

United States Imports[1] of Unmanufactured Wool (Clean Yield) In Millions of Pounds

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1981	6.9	7.7	6.6	7.5	8.6	4.9	6.5	5.3	3.7	6.0	5.1	5.3	75.3
1982	8.0	6.3	6.6	4.9	6.0	6.6	4.0	4.2	4.7	2.9	3.6	3.7	61.4
1983	6.0	6.2	5.0	6.7	4.9	7.5	6.5	5.8	5.1	8.5	8.0	8.9	78.1
1984	11.2	9.0	7.8	7.8	10.4	6.7	9.6	6.4	6.0	6.9	5.6	6.8	94.2
1985	10.7	5.8	6.0	5.7	7.1	4.9	7.3	4.5	6.9	7.1	5.5	8.0	79.5
1986	10.2	17.5											

[1] Data are imports for consumption. *Source: Department of Commerce* T.764

Price Received by Farmers for Shorn[2] Wool in the U.S. In Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average[1]
1981	84.6	88.3	91.8	101.0	99.8	101.0	94.4	84.8	84.3	87.3	91.1	84.2	94.5
1982	73.1	72.9	63.6	83.6	76.5	68.0	77.0	64.2	56.5	70.7	54.7	55.5	68.4
1983	50.0	57.1	56.0	65.7	65.0	63.5	62.7	59.6	57.2	66.4	70.1	64.1	61.3
1984	58.4	67.1	79.3	87.9	86.5	86.6	82.3	78.5	74.3	80.2	67.5	69.4	79.5
1985[3]	59.2	58.7	61.0	67.9	68.5	69.8	64.0	60.2	59.5	66.6	58.5	56.8	63.3
1986[3]	54.3	55.8	61.7	67.8	75.2								

[1] Weighted average. [2] Grease basis. [3] Preliminary. *Source: Crop Reporting Board, U.S.D.A.* T.765

Zinc

World mine production of zinc expanded about 2 percent in 1985 to a record level, boosted by increased Australian and Peruvian output. Canada, the largest producer, provided about 18 percent of world output, while the USSR, Australia, and Peru continued as other leading suppliers. High global production, coupled with weakening demand, allowed world surpluses to rise. Sluggish world economic growth, further adoption of thin wall die-casting, weight reduction programs in the automobile industry, and substitution with alternate materials contributed to reduced world zinc demand. Galvanizing, brass, and diecasting continued to be the primary uses of zinc worldwide.

U.S. mine production of zinc retreated about 14 percent in 1985 to the lowest level since 1971. The decline was the result of labor strikes at zinc mines in Tennessee and New York and the closing of a Colorado gold mine producing zinc. Tennessee, New York, and Missouri together accounted for about 87 percent of U.S. mine output. Domestic smelter production of slab zinc in 1985 fell about 9 percent from the year before mainly because of the indefinite closing of a major smelter located in Texas.

The U.S. relies heavily on zinc imports to meet domestic requirements. Imports of slab zinc are estimated to have fallen about 4 percent in 1985, while imports of zinc ore and concentrates expanded about 5 percent from 1984 levels. Canada was by far the largest supplier of slab and ore to the U.S., while Mexico and Australia were other main sources. The U.S., which also exports zinc, shipped slightly more zinc scrap and waste, and 25 percent less zinc ore and concentrate, in 1985 than the year before.

Total U.S. zinc consumption declined about 16 percent in 1985 because of slow economic growth and a sluggish construction industry. About 48 percent of total zinc slab consumed was used in galvanizing, 29 percent in zinc-based alloys, 13 percent in brass and bronze, and 10 percent in other categories. Additionally, about 200,000 tons of zinc compounds and dusts were used by the agricultural, chemical, rubber, and paint industries. Domestic slab consumption in 1985 was divided by end use as follows: construction, 45 percent; transportation, 25 percent; machinery, 10 percent; electrical, 10 percent; and others, 10 percent.

Total domestic yearend stocks held by consumers, producers, and merchants in 1985 were preliminarily estimated by the Bureau of Mines as unchanged from the 1984 level. The total amount of zinc in the General Services Administration stockpile was 343,000 tonnes, on September 30, 1985, below the government goal of 1.293 million tonnes. Although the stockpile goal was set by the Federal Emergency Management Agency in April 1980, no zinc was purchased by the government during the 1980-1985 period.

The year's average producer price for U.S. high grade zinc was 40.37 cents per pound in 1985. The average monthly producer price reached a peak of 45.12 cents in May and fell thereafter, closing the year on a December average of 33.61 cents. Producer prices in November and December 1985 were at the lowest level since late 1978. The London Metal Exchange (LME) cash price averaged 36.23 cents per pound in 1985.

Exploitable zinc deposits are found in a number of diverse geological environments. Major deposits are located in mixed sulfide ores strata-bound in metamorphic rock (in Canada, Australia, Tennessee and New York) and as irregular replacement strata-bound deposits in carbonate rocks (common worldwide, including Tennessee and Missouri).

The major substitutes for zinc in galvanized sheet and formed products are aluminum and plastic. The main substitutes for zinc in diecasting are aluminum, plastics, and magnesium.

Futures Market

In 1985, there were two zinc futures contracts traded on the London Metal Exchange. These were a High Grade contract and a Good Ordinary Blend (GOB) contract.

Salient Statistics of Zinc in the United States In Thousands of Metric Tons

		Production of Slab Zinc						Dec. 31 Stocks at				Consumption					
		Primary												Base Scrap[2]			
Year	Net Import Reliance as a % of Apparent Consumption	Domestic	Foreign	Total	Value Mil. $[6]	Redistilled Secondary	Total Production	Producer Plants	Consumer Plants	Gov't Stockpile	Total All Stocks	Zinc Slab	Ores[2]	Zinc[3]	Copper	Aluminum[4]	Total
1975	61	279.4	118.0	397.4	366	52.5	449.9	67.7	97.3	349.9		839.4	75.1	177.8	106.3	.5	1,117
1976	59	346.4	106.1	452.6	359	62.2	514.7	88.0	109.9	349.4		1,028.9	91.8	138.4	139.2	.5	1,394
1977	57	322.2	86.2	408.4	309	45.9	454.3	83.8	86.5	347.8		999.5	86.5	139.6	139.6	.6	1,368
1978	66	267.4	139.3	406.7	207	34.8	441.5	37.9	99.3	345.9		1,050.6	90.0	73.2	141.5	.5	1,442
1979	63	255.3	217.1	472.5	220	53.2	525.7	59.1	92.6	345.7		1,000.6	79.7	146.7	166.4	.9	1,394
1980	60	231.9	108.6	340.5	262	29.4	369.9	22.6	69.6	342.4	125.8	811.1	59.0	133.0	138.2	1.1	1,142
1981	65	259.8	86.7	346.5	307	50.2	396.8	44.7	81.9	340.6	195.4	840.9	60.6	149.3	138.7	.7	1,189
1982	58	193.3	34.9	228.2	257	74.3	302.5	34.2	77.6	340.6	159.2	709.5	35.5	93.1	114.3	.7	953.1
1983	65	210.3	25.4	235.7	251	69.4	305.1	23.9	89.0	340.6	148.1	805.9	38.3	131.7	144.0	.7	1,121
1984[1]	68	197.9	55.2	253.1	271	78.1	331.2	46.3	72.5	340.6	137.6	848.9	47.6	157.9	159.5	.7	1,215
1985[5]	69			240.0		70.0	301.0	36.3	44.2		107.7	711.8	52.7	97.3	153.0	.7	1,016

[1] Preliminary. [2] Recoverable zinc content. [3] Excludes redistilled slab & zinc produced by remelting. [4] Aluminum & magnesium-base scrap. [5] Estimate. [6] Domestic ores (recoverable content). *Source: Bureau of Mines*

T 770

World Smelter Production of Zinc In Thousands of Metric Tons

Year	Australia	Belgium	Canada	France	W. Germany	Italy	Japan	Mexico	Norway	Peru	Poland	Spain	USSR	Un. Kingdom[3]	United States	World Total
1977	256.4	258.2	494.9	238.3	354.8	169.4	805.0	174.4	69.8	66.9	228.0	156.6	815.0	81.5	454.3	5,812
1978	294.8	241.5	495.4	231.2	306.8	177.6	792.7	173.1	71.6	62.9	222.0	177.0	850.0	73.6	441.5	5,882
1979	310.4	252.6	580.4	248.6	355.5	202.3	789.4	161.7	77.8	68.2	209.0	182.7	880.0	76.7	525.7	6,260
1980	306.0	247.6	591.6	252.8	370.6	206.4	735.2	143.9	79.4	63.8	217.0	151.7	895.0	86.7	369.9	6,049
1981	300.4	234.7	619.0	257.1	366.6	180.9	670.2	126.5	80.3	126.2	167.1	179.5	905.0	81.7	396.8	6,085
1982	295.9	228.3	512.0	243.8	335.0	158.7	662.4	127.0	79.0	160.7	165.4	181.8	920.0	79.3	302.5	5,861
1983[1]	303.0	262.6	617.0	249.8	356.5	155.6	701.3	175.7	90.7	154.0	170.3	189.9	930.0	87.7	305.1	6,201
1984[2]	306.6	270.7	685.0	258.8	356.4	155.8	754.5	185.3	94.2	149.0	176.0	205.4	945.0	85.6	331.2	6,448
1985[2]	340		675					190		150					301.0	6,500

[1] Preliminary [2] Estimated [3] Some secondary metal included *Source: Bureau of Mines* T.771

U.S. Mine Production of Recoverable Zinc In Thousands of Metric Tons

Year	Arizona	Colorado	Idaho	Illinois	Missouri	Montana	Pennsylvania	New Mexico	New York	New Jersey	Tennessee	Utah	Virginia	Washington	Wisconsin	Total U.S.
1976	8.6	45.9	42.3	N.A.	75.8	.1	20.2	N.A.	66.8	30.6	74.9	20.4	10.2	N.A.	N.A.	439.5
1977	4.0	36.5	28.1	N.A.	74.1	.1	20.7	N.A.	64.3	30.4	82.0	16.1	12.0	5.1	N.A.	407.9
1978	N.A.	22.2	32.4	N.A.	59.0	.1	19.1	N.A.	26.5	28.9	87.9	3.5	11.0	N.A.	N.A.	302.7
1979	N.A.	9.9	29.7	N.A.	61.7	.1	21.4	N.A.	12.1	31.1	85.1	N.A.	11.4	—	N.A.	267.3
1980	N.A.	13.8	27.7	N.A.	62.9	.1	22.6	N.A.	33.6	28.9	111.8	N.A.	12.0	—	N.A.	317.1
1981	.1	N.A.	N.A.	N.A.	52.9	—	24.7	N.A.	36.9	16.2	117.7	1.6	9.7	—	—	312.4
1982	—	N.A.	N.A.	N.A.	63.7	N.A.	24.8	—	52.3	16.8	121.3	—	—	—	—	303.2
1983	—	N.A.	N.A.	N.A.	57.0	—	16.8	—	56.7	16.5	110.0	—	—	—	—	275.3
1984[1]	—	N.A.	N.A.	N.A.	45.5	—	N.A.	—	N.A.	N.A.	116.5	N.A.	—	—	—	252.8
1985[2]					49.6						95.3					217.5

[1] Preliminary [2] Estimated *Source: Bureau of Mines* T.772

Consumption of Slab Zinc in the United States, by Industries and Grades In Thousands of Metric Tons

		By Industries							By Grades					
Year	Total	Galvanizers	Brass Products	Zinc-Base Alloy[2]	Rolled Zinc	Zinc Oxide	Light-Metal Alloys	Other	Special High Grade	High Grade	Contin.[5] Galvan. Grade	Contrd.[4] Lead Grade	Prime Western	Remelt
1976	1,028.9	392.9	150.8	387.4	27.1	35.4	5.2	30.1	500.1	101.1	21.0	94.8	310.7	1.2
1977	999.5	396.4	128.3	367.1	27.4	38.5	5.6	36.1	492.6	91.0	19.7	101.2	293.7	1.2
1978	1,050.6	454.0	141.5	354.1	24.9	37.2	11.0	27.8	491.3	109.7	21.8	98.4	327.7	1.7
1979	1,000.6	452.8	141.4	314.1	22.0	35.5	12.9	21.9	443.1	108.6	22.5	86.8	336.8	2.8
1980	811.1	379.2	98.8	254.2	21.1	27.0	11.1	19.6	354.3	76.2	18.5	70.3	290.3	1.6
1981	840.9	411.0	113.0	243.4	23.2	25.7	8.2	16.5	361.5	97.6	18.2	80.3	275.3	1.2
1982	709.5	342.0	81.1	197.8	37.2	32.4	8.3	10.7	324.8	84.6	24.5	68.7	204.9	2.0
1983	805.9	373.2	107.9	212.9	56.3	36.2	12.5	6.9	406.7	91.0	62.6	60.8	179.1	5.6
1984[3]	848.9	375.6	125.6	232.6	56.9	37.0	14.9	6.2	449.1	100.3	53.9	55.4	184.5	5.6
1985[1]	711.8	310.3	71.9	177.5	42.6	16.1	—9.4—							
1986														

[1] Estimated. [2] Die Casters. [3] Preliminary. [4] Controlled. [5] Continuous. *Source: Bureau of Mines* T.773

Zinc Foreign Trade of the United States In Metric Tons

	Imported for Consumption							Zinc Ore & Manufactures Exported						
								Blocks, Pigs, Anodes, etc.		Wrought & Alloys				
Year	Ores[1]	Blocks, Pigs, Slabs	Zinc Fume	Waste & Scrap	Dross, & Skimmings	Dust, Powder & Flakes	Total Value Thous. $	Unwrought	Unwrought Alloys	Sheets, Plates & Strips	Angles Bars, Rods, etc.	Waste & Scrap	Dust (Blue Powder)	Zinc Ore & Concentrates
1978	106,315	622,470	60	3,310	7,436	8,978	434,376	723	554	2,262	860	14,986	1,803	10,973
1979	87,499	524,130	28	3,259	4,454	3,586	434,677	279	366	1,824	1,451	28,149	966	20,095
1980	182,370	410,163	25	3,470	4,062	3,928	401,134	302	485	2,103	804	29,542	4,512	54,457
1981	245,710	612,007	184	5,782	7,629	7,993	676,299	323	378	1,500	1,160	30,046	5,003	54,232
1982	66,809	456,233	11	2,653	7,104	5,864	409,896	341	863	995	1,028	29,424	2,066	77,289
1983	63,156	617,679	631	3,900	6,508	6,533	533,398	427	662	957	1,046	28,255	1,914	60,168
1984[2]	86,172	639,228	314	6,259	5,027	7,572	683,211	760	588	975	840	39,146	2,933	30,579
1985[3]	90,186	610,900	—	3,247	4,941	8,681		1,009				43,945	2,035	23,262
1986														

[1] Zinc content. [2] Preliminary. [3] Estimate. *Source: Bureau of Mines* T.774

ZINC

U.S. Mine Production of Recoverable Zinc In Thousands of Metric Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	23.3	21.7	23.8	21.1	23.0	21.9	20.9	25.4	18.7	23.8	22.2	21.7	267.3
1980	28.7	26.8	28.6	27.2	25.9	27.4	24.9	25.5	24.4	28.6	24.3	24.8	317.1
1981	25.5	25.7	28.5	26.3	25.6	23.9	24.2	25.2	28.9	28.7	26.0	23.9	312.4
1982	24.3	24.7	26.3	23.4	25.6	27.0	21.3	27.4	26.1	27.8	25.9	23.3	303.2
1983	25.2	23.0	25.6	23.1	22.5	21.1	20.2	24.0	23.1	23.9	21.9	21.7	275.3
1984[1]	23.2	25.0	26.9	21.8	22.7	19.9	19.2	16.2	15.1	21.5	21.2	19.0	252.8
1985[1]	19.7	21.8	23.6	17.8	18.9	18.8	13.9	14.2	14.8	19.1	16.3		
1986													

[1] Preliminary. *Source: Bureau of Mines* T.774A

U.S. Consumption of Slab Zinc by Fabricators In Thousands of Metric Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	88.4	89.3	96.9	88.4	94.1	90.3	73.6	84.5	72.4	82.4	76.4	71.4	1,000.6
1980	80.4	80.3	82.8	74.1	61.0	55.5	46.8	58.2	66.7	74.6	72.3	70.5	811.1
1981	74.5	73.6	77.3	74.3	73.6	77.2	64.4	72.4	70.2	66.2	59.8	52.0	840.9
1982	55.1	55.3	60.0	57.8	58.8	65.8	56.3	60.7	61.4	60.8	53.7	50.8	709.5
1983	61.8	59.9	68.8	66.7	64.1	65.7	55.8	64.5	67.2	65.5	70.1	63.7	805.9
1984[1]	69.4	70.2	76.8	72.1	73.1	71.1	62.8	67.6	65.1	69.2	64.9	62.4	848.9
1985[1]	65.3	64.4	62.8	61.0	66.0	59.0	52.6	55.9	56.8	58.9	55.8		
1986													

[1] Preliminary. *Source: Bureau of Mines* T.774B

Stocks of Slab Zinc[1] (at Smelter) in the United States, at Beginning of Month In Thousands of Short Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1979	39.9	38.0	37.5	44.5	46.7	45.1	51.8	58.1	57.5	56.3	66.0	61.5
1980	47.5	34.0	31.9	31.4	36.9	42.8	42.1	35.4	30.1	23.4	20.6	20.6
1981	18.4	18.8	20.9	17.6	17.2	17.9	20.9	22.9	21.5	27.0	34.9	38.1
1982	40.4	45.4	46.1	44.0	39.0	30.8	22.6	16.5	17.6	22.0	23.7	27.1
1983	24.2	24.4	21.4	19.8	21.2	22.4	22.2	15.0	10.6	16.0	17.8	18.4
1984	18.4	15.9	17.4	16.5	22.0	27.9	37.4	43.4	44.4	49.0	40.5	36.1
1985	48.2	48.1	46.0	37.8	35.6	35.3	35.3	35.6	37.8	39.9	35.8	37.3
1986	39.2	33.6	28.8									

[1] Figures include zinc produced from foreign ores as well as domestic ores. *Source: American Bureau of Metal Statistics, Inc.* T.777

Smelter Production of Slab Zinc[1] in the United States (Includes GSA Metal) In Thousands of Short Tons

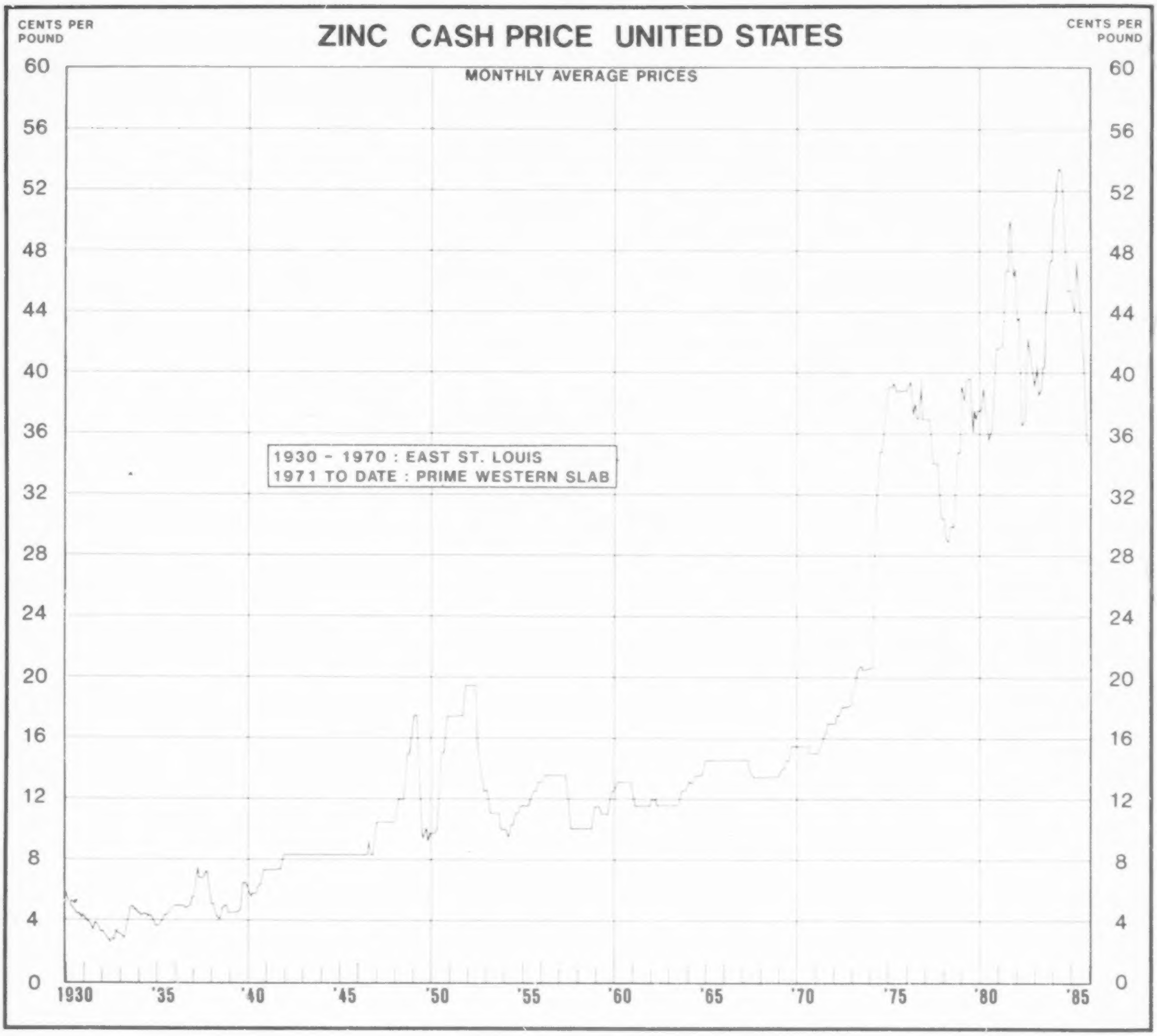
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	45.7	46.1	52.9	51.1	49.9	43.0	44.0	42.0	39.8	46.0	43.4	33.5	537.4
1980	30.5	30.6	34.8	32.1	31.9	28.5	20.8	26.7	28.6	31.0	29.9	33.2	358.6
1981	33.4	31.5	34.5	34.1	32.2	30.8	33.0	33.5	29.4	29.8	29.3	25.3	376.8
1982	26.7	23.8	23.6	21.3	23.7	23.7	20.6	22.4	26.5	27.3	20.6	19.9	280.3
1983	20.0	22.8	25.0	24.7	25.9	24.0	17.6	25.6	25.1	26.5	27.3	24.1	288.5
1984	25.5	24.3	23.9	28.4	27.3	30.1	27.0	26.0	25.4	25.4	25.2	31.2	319.7
1985	30.9	28.5	33.2	28.2	26.9	21.3	23.6	26.9	27.4	30.7	27.2	27.1	331.8
1986	28.2	21.3											

[1] Smelter & refinery production from domestic & foreign ores. *Source: American Bureau of Metal Statistics, Inc.* T.775

Domestic Shipments of Slab Zinc[1] in the United States In Thousands of Short Tons

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1979	44.2	47.9	53.5	44.1	47.7	44.5	37.4	35.7	40.3	47.3	33.7	37.9	514.3
1980	44.5	44.2	36.8	32.7	26.4	22.6	21.5	33.4	34.0	37.6	32.7	33.3	399.6
1981	35.6	31.1	32.3	37.4	32.6	30.2	30.0	31.5	30.8	24.3	21.4	22.0	359.2
1982	24.4	18.8	22.9	23.4	28.7	31.9	28.7	28.6	25.4	23.0	18.9	16.5	291.3
1983	22.9	22.6	28.0	26.3	24.4	22.8	17.9	32.8	29.5	21.2	25.5	23.5	297.3
1984	28.0	22.8	24.8	22.9	21.4	20.5	20.9	25.1	20.8	33.8	29.7	19.1	289.9
1985	30.9	30.6	41.4	30.5	27.1	21.3	23.4	24.7	25.3	34.8	25.6	25.2	340.7
1986	33.9	29.2											

[1] Does not include export shipments & Gov't. account shipments. *Source: American Bureau of Metal Statistics, Inc.* T.776



Average Price of Zinc, Prime Western Slab (Delivered U.S. Basis) In Cents per Pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct	Nov	Dec	Average
1974	31.18	31.75	32.70	34.75	34.75	35.25	36.97	38.00	38.95	39.00	39.00	39.00	35.94
1975	39.25	39.07	38.75	38.75	38.75	38.75	38.75	38.75	38.75	39.66	38.75	38.75	38.89
1976	37.26	37.00	37.00	37.00	37.00	37.00	37.00	38.75	39.50	37.00	37.00	37.00	37.38
1977	37.00	37.00	37.00	37.00	35.64	34.00	34.00	34.00	34.00	31.74	30.66	30.50	35.21
1978	30.50	30.26	29.00	29.00	29.00	29.95	30.00	31.92	32.75	33.66	34.75	34.75	31.30
1979	35.00	36.90	38.09	39.50	39.50	39.55	39.63	36.82	36.03	37.50	36.88	37.50	37.74
1980	37.50	38.70	38.92	38.50	37.50	36.55	35.50	35.98	37.46	38.48	39.69	41.63	38.03
1981	41.63	41.63	42.13	43.73	46.55	46.63	46.67	49.74	49.88	46.41	46.75	43.65	45.45
1982	43.31	43.56	43.56	36.39	36.64	36.69	38.86	40.00	42.21	42.50	40.80	38.99	39.95
1983	40.20	40.35	38.38	38.73	40.38	40.38	41.51	44.03	46.38	47.09	49.38	49.38	43.02
1984	51.10	51.38	52.84	53.38	53.26	52.61	50.13	48.97	47.16	45.38	45.38	45.38	49.75
1985	46.05	47.38	46.05	47.38			42.67	41.38	40.63		35.56	35.38	42.49
1986	35.38	35.38											

Source: American Metal Market T.778

(continued from front flap)

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